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ABSTRACT

Intended to assist administrators in the planning, management, and utilization of evaluation, this guidebook is designed as an introduction and supplement to other evaluation materials for bilingual education programs being developed under federal sponsorship, including evaluation models for Title VII projects. General information is provided on the conduct of evaluations, the variety of evaluation methods, and ideas for evaluating both the progress and impact of Title VII programs. This guidebook is an introductory evaluation tool which builds upon ideas generated by project administrators, developers, and evaluation specialists. The contents reflect reactions made by bilingual education experts during a workshop on Title VII Management and Evaluation (September 1979). Specifically, the following are dealt with: Planning and Organizing for Effective Evaluation; Designing the Evaluation; Measuring Project Implementation; Measuring Student Performance; Measuring School, Family, and Community Factors; Analyzing and Reporting Evaluation Results; and, Using the Evaluation Findings. (Author/GK)

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Program Impact Evaluations

An Introduction for Managers of Title VII Projects

A Draft Guidebook

TM 810 817

PROGRAM IMPACT EVALUATIONS: AN INTRODUCTION FOR MANAGERS OF TITLE VII PROJECTS

A Draft Guidebook

Joan S. Bissell

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Foreword

Foreword

Background

This Guidebook is intended to serve as a tool for Title VII project staff and administrators in the management of bilingual education evaluations. It is designed as an introduction and a supplement to other evaluation materials for bilingual education programs also being developed under federal sponsorship, including specific evaluation models for Title VII projects. The Guidebook is intended to assist administrators in the overall planning, management, and utilization of evaluations. Its purpose is not to spell out specific federal administrative regulations since these are to be made available separately by the Office of Bilingual Education. Rather, it is designed to provide general information on the conduct of evaluations, on the variety of evaluation methods, on ideas for evaluating both the progress as well as the impact of Title VII programs. Supplementary materials and training for use in Title VII project evaluations, including a comprehensive annotated bibliography, illustrative evaluation procedures, lists of evaluation resources, and specific training materials and workshops consistent with this Guidebook will be provided through Title VII Evaluation, Dissemination, and Assessment Centers (EDAC(s)) and through the National Clearinghouse for Bilingual Education (see page viii).

Since the Guidebook is an introdutory evaluation tool, it will hopefully have wider applications—to bilingual education programs funded through other sources, and to other kinds of educational programs as well. The audience for this Guidebook is project staff and administrators; it builds upon the ideas and comments generated by project administrators, developers, and evaluation specialists.

This Guidebook is a draft and will remain in draft form for approximately one year. In the interim the National Institute of Education and the Office of Bilingual Education, through the Title VII Network Centers, will continue to refine it. Your comments are invited and should be directed to the Director of your regional Network Center, with a copy to the Research and Development Unit of the Office of Bilingual Education.

Acknowledgements

The contents of the Guidebook reflect the presentations and reactions made by experts in bilingual education during a workshop on Title VII Management and Evaluation held in September, 1979. The Workshop was sponsored jointly by the National Institute of Education (Reading and Language Studies Program) and the Office of Bilingual Education. The Guidebook is a tribute to the expertise and cooperation of the individuals who participated in the Workshop. The participants' names and institutional affiliations are listed in the appendix.

The Guidebook also reflects the direction given to the Workshop by the NIE project officer, Ellen Rosansky, and by the SWRL project manager, Víctor Rodríguez. The writing of the Guidebook was done by Joan Bissell.

It is my sincere hope that this Guidebook will serve as a useful step in the ongoing improvement of Title VII management and evaluation—an essential step toward better serving the needs of children of limited-English-proficiency in the country.

Josué González, Director
Office of Bilingual Education

Introduction

Introduction: A Framework for Title VII Project Evaluation

To introduce the uses of evaluation for Title VII projects, several points should be kept in mind, each of which is described in more detail below:

1. There is no single approach to evaluation.

2. Evaluation is a *process* which should be part of the ongoing management of a Title VII project, not an independent activity separated from other components of program operation.

3. The type of evaluation used depends upon the audiences for whom it is designed and the objectives it is to address.

4. An evaluation is neither wholly neutral nor entirely value-free.

5. The conduct of evaluation is not without methodological problems, in instruments, in field work, and in the application of evaluations to bilingual programs.

6. A number of resources, however, are available to assist project managers in both the conduct of Title VII projects and in the conduct of evaluations.

7. The roles of the Office of Bilingual Education include not only serving as a funding agency with requirements for evaluation, but also as a support agency for bilingual education projects.

Each project manager, teacher, and parent conducts evaluations daily, from making a judgment about the English proficiency of a student to organizing a sequenced curriculum in a particular step-by-step fashion. When one assigns a value to something, such as *x* is better than *y*, or concludes that a particular activity has been completed, one is making an evaluative statement. What makes program evaluation different from other types of evaluation conducted every day is that program evaluations try to examine in a systematic and rigorous manner particular aspects of a program. Just as there is no *one* bilingual education project that fits every locale and every set of conditions, there is also no *single* way of evaluating bilingual education projects. Different evaluation approaches are appropriate under different conditions and with different kinds of projects having varying information needs. Therefore, it is important to be eclectic in selecting from the many evaluation techniques those that are suitable to a particular project.

Each evaluation is to be tailored both to the audiences it is intended to serve and to the objectives it is intended to assess. Evaluations of bilingual education projects must serve not only project managers and staff but also parents, if such evaluations are to be supportive of the roles specified in Title VII. While a principal purpose of evaluation is to assist project managers in decisionmaking and in instituting course corrections where such corrections are indicated, evaluations should also serve the needs of other project staff—classroom teachers, aides, principals, curriculum developers, etc.—and parents, whose support is the bedrock of successful bilingual education projects. To incorporate the needs of the various audiences into the evaluation, it is critical to involve these stakeholders early in the design of an evaluation so that the evaluation addresses the questions of primary concern to these groups.

While there are many different types of evaluation, the single most common form of evaluation used in assessing educational programs focuses on whether the objectives of a program are, in fact, being accomplished. It involves essentially a comparison between what one hopes to accomplish and what actually is happening. Such evaluations are not restricted to assessing the impact of a program, including student achievement, but may address also whether a number of process objectives are being accomplished, such as whether staff have been trained, whether various activities have taken place, and whether a number of audiences have been involved in the program. The objectives of the program help to define what, in fact, the program is. Great care must be taken by the program managers and others in defining very carefully what the objectives for study will be. At the same time, the evaluation should focus on the level of implementation of a program, on how the program is staffed, and on the environment in which the program is operating. Such information is important in order that evaluations may identify the school and community factors which are supportive of or obstacles to successful project operation.

Another point to remember in designing, conducting, and using an evaluation is that an evaluation is neither wholly neutral nor entirely value-free. The methods one uses to collect and analyze data are rigorous, systematic, and neutral. The topics (or objectives) one chooses to address, however, reflect value judgments. Title VII projects vary considerably in their goals and value premises. While they share some common elements, such as required objectives related to English language learning and reading achievement, and mandatory components such as parent advisory councils, they also have many unique attributes and values which relate to the particular communities in which they operate and the student needs which they serve. This fact, in combination with the complex socio-political factors which surround bilingual education, makes it essential that evaluations are compatible with project needs. What one chooses to measure and the priorities that are assigned to different evaluation activities reflect certain choices. Just as programs and program managers have their own set of values, evaluators tend to bring to their work particular frames of reference. A project manager should seek an accurate, balanced, and thorough review from an evaluator. This requires beginning with an understanding of the viewpoints which both the program and evaluation staff bring. It requires examination of whether these viewpoints are both consonant with and objective enough about project goals to assure quality and utility in the evaluation effort.

As one proceeds with setting up and conducting an evaluation, one must also recognize that while considerable expertise has been developed regarding the evaluation of bilingual education projects, there are limitations: limitations in existing instruments; problems in the use of evaluation designs that require the identification of comparison groups; difficulties in separating project effects from the effects of school and community contexts; and the need to measure and not simply assume project implementation. Concerns about instruments are well known and range from limitations in language assessment instruments to the questionable appropriateness of available standardized achievement tests for many students of limited-English proficiency (LEP) and the limitations in available instruments for measuring student attitudes. Concerns about instruments and design, as well as the complex interrelationships between such factors as teacher preparation and learning, and the roles of parents and community in the learning process preclude the use of a simple evaluation design or the exclusive use of standard methods. New evaluation approaches may need to be devised and multiple measures used to accurately assess projects and their effects.

There are, however, many resources which can be drawn upon by managers as they engage in the complex task of shaping and overseeing evaluations which meet their needs and those of project staff and parents. The following diagram displays several sources of information and assistance in evaluation and in other areas available to Title VII project directors.

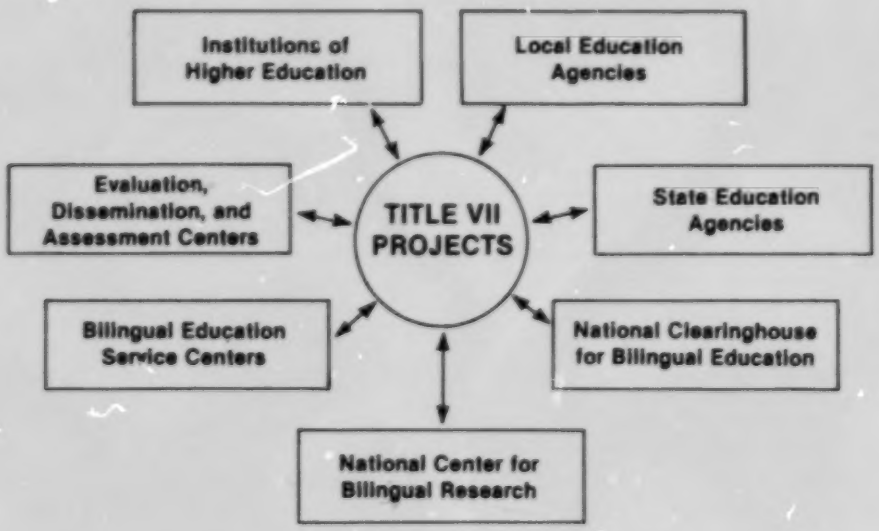
Institutions of Higher Education
Local Education Agencies
Evaluation, Dissemination, and Assessment Centers
TITLE VII PROJECTS
State Education Agencies
Bilingual Education Service Centers
National Clearinghouse for Bilingual Education
National Center for Bilingual Research

Figure 1. Sources of Information for Title VII Projects

As the diagram shows, many resources are available at no cost or at little cost to assist project directors as they plan and manage evaluations of bilingual education projects. Regional Bilingual Education Service Centers (BESCs) and Evaluation, Dissemination, and Assessment Centers (EDACs), as well as the National Clearinghouse for Bilingual Education and the National Center for Bilingual Research all have been established primarily to provide assistance to local projects; all can provide valuable information and tools for shaping and conducting useful evaluations. Similarly, state education agencies receive federal funds for providing support and technical assistance to local projects at no cost to the projects. Numerous institutions of higher education receive federal support for training bilingual education personnel, and these institutions also can serve as significant resources to local projects. These are among the technical assistance resources which can make evaluation a valuable element in program development, implementation, and achievement of outcomes, rather than a separate mandatory activity which fails to serve project needs.

In planning and conducting evaluations of their projects, Title VII project directors should also be aware of the roles of the Office of Bilingual Education (OBE) and its expectations and intended uses of project evaluations. OBE expects that evaluations will be used not only to assist local staff and parents, but also to help inform federal staff about local projects. Evaluations are one tool in OBE project planning and management. They will be read by, at a minimum, the OBE project officer assigned to a particular project. The evaluations and applications for funding constitute the two main sources of information that OBE has as a starting point for its management functions. These documents, therefore, are used by OBE in establishing priorities for site visits in determining matters to be examined in the course of project monitoring. In addition, evaluation reports may be used to judge whether projects are in fact meeting their objectives and whether they should continue to receive funding during subsequent years.

The use of evaluation information in re-funding decisions always raises a question about whether evaluations will be candid and honest or self-serving. While evaluations have legitimately served in a decision to limit or withdraw funds, such evaluations often have been defined narrowly, focused on only selected aspects of a program, and have not presented a true picture of a program or its accomplishments. Hence, it is very important that evaluations be designed to examine multiple objectives, use multiple measures, and analyze the various factors—school, community, and classroom—affecting program operations. It is also helpful to include objectives that relate to evaluation and program improvement. For example, "to design and install an evaluative feedback mechanism," "to use evaluation findings to make course corrections and address identified problems"—these are highly defensible objectives which OBE supports and encourages, particularly because it views ongoing evaluation of project implementation as an important process within Title VII projects.

Finally, it should be noted that although the federal government requires and will use evaluations of Title VII projects, the primary users should be the local staff and participants. In the same vein, while conducting sound evaluations may entail involvement of individuals who have considerable research skills and interests, the purpose is not to serve the needs of researchers. It is the project director, the staff, and the parents—those individuals who on a day-by-day basis make bilingual education projects work to serve the needs of LEP children—for whom evaluation is primarily intended. And the evaluation activities which consume valuable project resources should be seen as tools by these individuals—tools which provide information they can use both for informing themselves and for improving project efforts.

Purpose and Organization of the Guidebook

This Guidebook is not a "how-to" guide for conducting evaluations. The reference section identifies many fine documents that provide step-by-step explanations and directions for conducting evaluations. Preceded by a manager's Checklist, this Guidebook is intended to help project managers know what to look for in an evaluator, what to expect of persons responsible for the evaluation, and what to keep in mind in monitoring the evaluation. The Checklist can be used by a manager to help ensure that the basic technical aspects of an evaluation have all been treated, and we have organized the Guidebook around the Checklist items.

The usefulness of the results of an evaluation depends ultimately upon the degree to which the evaluation is technically adequate. The chapters in the Guidebook discuss briefly the specific elements in the Checklist and sketch in broad terms how to plan for inclusion of those elements in an evaluation. The chapters do not provide detail on how to *implement* those elements; rather they suggest how to plan,

manage, and use those elements for the effective management and use of evaluations. While some sample evaluation formats are included, they are intended only to illustrate points made in the Guidebook. They have not been presented as specific procedures which all projects should adapt, but rather as examples of the various types of forms which *may*, if adapted to meet local needs, be helpful in managing and conducting effective evaluations.

In the chapters that follow, each major Checklist entry issue is discussed in greater detail. Considering the specific issues included within various evaluation activities will help inform project managers in making the decisions appropriate to their specific projects. Where more detail and information might be useful to help inform program manager decisions concerning various evaluation activities, further specific references are suggested. There are also a number of useful guides to evaluation currently available. These guides, while not directed specifically at Title VII project directors, can also help inform decisions. Information about them will be available through EDACs and through the National Clearinghouse for Bilingual Education.

The chapters which follow address many important issues which directors of Title VII bilingual projects must confront when planning for the evaluation component of their projects. In many cases, solutions are also discussed. It is important to keep in mind, however, that many solutions are dependent on specific situations and program characteristics. To that end, the goal of this Guidebook is to help inform program managers. The reader should not expect to find, in the chapters which follow, specific recommendations to handle every situation. Rather, issues which Title VII bilingual project directors are often faced with are discussed and guidance is offered, where appropriate.

Some Caveats for Users

Some Caveats for Users

The reviewers of the Draft Guidebook expressed the need to remind its users that the Introduction is a document in process. We look to the Technical Assistance Centers and to users of the Guidebook to improve the Introduction still further. We believe, nevertheless, that with the cautions listed in this section, this Introduction is a useful contribution to the field and will assist managers of Title VII projects in evaluating the impact of their program.

1. **Who determines what is quality?** The Introduction offers many suggestions through checklists and discussions for what a quality impact evaluation should include. One example is "Audiences and Purposes of the evaluation have been determined." This doesn't indicate, however, what would be acceptable or poor quality in such a determination or in meeting the other guidelines listed.
2. **How realistic are the guidelines?** The guidelines assume an optimum situation: valid instruments available to measure language growth and proficiency; Technical Assistance Centers with resources and competencies to provide help; multiple objectives that can be assessed using multiple measures without evaluation dominating the programs; and resources and time to carry out the guidelines. Many Title VII projects do not enjoy these conditions. Indeed, they face the additional problems of periodic refundings, uncertain renewals and sometimes arbitrary decision-making beyond their control, which influence ability to use the guidelines.
3. **How feasible are the procedures in highly mobile populations?** Some of the procedures recommended use cumulative data or standard test scores that aren't very meaningful in highly mobile groups. Other useful indicators of program impact could be emphasized more: for example, local budgeting of resources for the programs might indicate strong school district commitment to the program.
4. **Whose needs for evaluation information have priority?** The Introduction presents counsel on summative information usually required by federal and state decision-makers, particularly outcomes for student participants. Program managers and local decision-makers may place higher priority on more management-oriented, formative or process evaluation. Such management-oriented evaluation is discussed only briefly in the Introduction. Parents, communities, program managers, school district, state and various federal personnel may be in harmony on only a few priorities for the evaluation.
5. **How much for evaluation, how much for service delivery?** In a time when many communities cannot afford the basic ingredients for adequate service delivery, even a little money for evaluation comes hard, and too little money will not support an adequate evaluation. School districts, local colleges and universities, Technical Assistance Centers, and related programs serving bilingual populations perhaps could augment resources through coordinated studies or contributions so that adequate documentation of program quality and effects would not come at the expense of service delivery.
6. **Newer approaches to evaluation.** The Introduction is a basic introduction to standard evaluation approaches which require the use of pre- and post-testing and comparison groups. But these techniques have pitfalls: for example, some comparison projects provide good educational opportunities. Consequently, a "no difference" finding should not be interpreted to mean the Title VII project isn't effective—perhaps both projects need improvement, perhaps both are outstanding. Experimentation with what might seem more appropriate evaluation techniques should not be precluded because they are not mentioned in this Introduction. For example, current work in educational program evaluation emphasizes the combination of qualitative and quantitative approaches. This synthesis of approaches appears to yield more comprehensive pictures of program effect. Moreover, the approaches go beyond the exclusive assessment of students and include other program variables as part of their investigation.

Program managers may wish to use other resources in conjunction with the Introduction. These include evaluation examples and materials available through the National Clearinghouse for Bilingual Education, through the Title VII Evaluation, Dissemination and Assessment Centers, and the new Standards for Educational Evaluations now distributed through the American Educational Research Association.

We look forward to sharing with users ideas that develop in evaluating bilingual education programs, and hope that this Introduction is helpful to you.

Lois-ellin Datta
Associate Director
Program on Teaching and Learning
National Institute of Education

Checklist

Checklist for Planning and Managing the Evaluation of Title VII Projects

This Checklist identifies activities which should be included in a complete bilingual education evaluation. It may not be possible for all elements (for example, in Sections III and V) to be included *every year,* but during the course of a project, some attention should be given to each of the activities.

The Checklist is meant not only as a convenient means of checking off evaluation-related activities; it is also an outline of the issues to be discussed in the Guidebook. Each main entry on the Checklist is further elaborated in the chapter with the same title. To further assist the reader, a box appears at the end of each chapter to remind the reader how the issues discussed translate back into the specific checklist activities.

CHECKLIST SECTION I

I. Planning and organizing for effective evaluation

1a. ☐ Audiences and purposes of the evaluation have been determined.

b. ☐ Purposes reflect needs of project staff, district administration and board, and requirements of state and federal (USOE) agencies.

2. ☐ The evaluation questions have been identified which must be addressed to fulfill the evaluation purposes and to serve the needs of its major audiences.

3a. ☐ Participants in the evaluation have been identified and involved in the planning of the evaluation.

b. ☐ Relationships between project staff and evaluators, internal and external evaluators, and between project evaluators and other district evaluation staff have been defined.

c. ☐ Ongoing roles of parents, community members, and students in evaluation have been defined.

4. ☐ An evaluation team has been established which represents expertise in all areas relevant to evaluating the entire project.

5a. ☐ Training needed by evaluation participants has been identified, including specialized training necessary for isolated projects or those serving languages spoken by small populations.

b. ☐ Methods have been established for providing such training.

6a. ☐ Evaluation costs have been estimated and judged for appropriateness in the context of the total project budget.

b. ☐ Potential efficiencies associated with coordination with other local evaluation activities have been identified.

7. ☐ A schedule of evaluation timelines has been developed in conjunction with major evaluation participants and users.

8a. ☐ An evaluation monitoring process has been established.

b. ☐ Roles of the monitoring team have been defined users.

9. ☐ Special issues pertinent to the evaluation of the particular project have been identified.

CHECKLIST SECTION II

I. Planning and organizing for effective evaluation

II. Designing the evaluation

1a. ☐ The overall evaluation design has been developed in conjunction with project staff, appropriate consultants, and other relevant participants.

b. ☐ The design includes attention to:

- ☐ identifying evaluation priorities,
- ☐ assessing attainment of each objective that is to be evaluated,
- ☐ data collection instruments and methods to be used,
- ☐ data analysis procedures,
- ☐ time schedules, and
- ☐ staff responsibilities.

2a. ☐ The evaluation design specifies a comparison procedure to estimate what the performance of participants would have been in the absence of the project.

b. ☐ The methods to be used to identify nonparticipants for comparison or to utilize another comparison standard (e.g., a historical or a statistical comparison) have been identified.

c. ☐ The comparison procedure has been reviewed to assure that it is sound.

3. ☐ Sampling procedures have been identified, if applicable, and steps have been taken to assure that sample results will be representative of the entire project population.

4a. ☐ The evaluation design identifies and takes into consideration other special programs which may affect project implementation and outcomes.

b. ☐ Title VII evaluation activities have been coordinated with those of other specially funded programs.

c. ☐ An attempt is to be made to identify the separate effects of the Title VII project, or an indication is to be given of the effects which cannot be attributed to the Title VII project apart from other special programs which are also operating.

5. ☐ Procedures have been established which assure sound data collection and which take into account potential logistical problems.

6. ☐ Data analysis procedures have been identified which will address evaluation questions and which are appropriate for use with the project data.

CHECKLIST SECTION III

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

1a. ☐ Procedures have been established for documenting project implementation.

b. ☐ Procedures include methods for describing:

- ☐ steps taken in installing the project,
- ☐ the program treatment—curriculum, materials, staffing, parental roles, etc.,
- ☐ criteria for identification and selection of participants (including fluent English—speaking students),
- ☐ follow-up procedures for sustaining students' achievement after they have left the project,
- ☐ staff development activities, and
- ☐ project management procedures.

2. ☐ The evaluation contains procedures for identifying factors likely to influence the effectiveness of the Title VII project, including:

- ☐ organizational relationships between the bilingual program and the English instructional program at the school and district levels,
- ☐ availability of qualified personnel,
- ☐ pupil/teacher ratios,
- ☐ amount of instruction provided,
- ☐ availability of appropriate curricular materials,
- ☐ involvement of parents and other members of the community,
- ☐ commitment of local and state resources to bilingual education, and
- ☐ other factors likely to affect project success.

3. ☐ The evaluation includes attention to project fiscal status.

4. ☐ Provisions have been established for ongoing feedback of implementation data to project administrative staff, teachers, principals, parents, and school district staff personnel.

CHECKLIST SECTION IV

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

IV. Measuring student performance

1. ☐ Language assessment instruments have been identified for determining pupil eligibility and initial placement, and for continuously reassessing pupil progress to determine appropriate classification and instructional placement.

2a. ☐ Language assessment instruments have been reviewed to judge their technical characteristics.

b. ☐ The rationale for their selection has been documented.

3. ☐ Achievement testing instruments have been selected for measuring preprogram status of student reading in English and in the non-English language, and for assessing changes in student achievement through posttesting.

4. ☐ The rationale for selecting specified achievement testing instruments has been documented, and/or alternative procedures for measuring student progress have been identified.

5. ☐ Provisions have been made for administering all language assessment instruments and student achievement tests, including identification of testing personnel.

6a. ☐ Procedures have been established for analyzing and reporting pretest and posttest results on achievement tests.

b. ☐ Procedures include provision of data for participant pupils and for appropriate comparison standards.

c. ☐ Information to be reported includes mean scores, standard deviations, and results of tests to determine the statistical significance of differences.

7a. ☐ Procedures have been established to measure student affective, attitudinal, and social development.

b. ☐ Measurement instruments and/or other indicators (e.g., unobtrusive measures) have been selected for these areas, and appropriate comparison standards have been identified.

8. ☐ The evaluation of student progress includes indicators sufficient to reflect the project's fundamental assumptions regarding bilingual education and its purposes.

9a. ☐ The evaluation design reflects the overall plan of grade-level progression and the different emphases of the project at various grade levels.

b. ☐ To the extent feasible, the evaluation measures project effectiveness over a multi-year period.

10. ☐ Teachers and aides are involved in providing information regarding student outcomes and in receiving continuous feedback on student performance.

CHECKLIST SECTION V

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

IV. Measuring student performance

V. Measuring family, school, and community factors

1. ☐ The evaluation includes procedures for documenting the school and community context in which the project operates.
2. ☐ Procedures have been established for examining parent participaton, including a review of the project's provisions for:
   - ☐ encouraging and facilitating parent participation in a variety of roles,
   - ☐ parent involvement in project decisionmaking,
   - ☐ parent participation in classroom events and in instructional roles,
   - ☐ parent participation in project evaluation,
   - ☐ parent education activities, and
   - ☐ ongoing liaison between the project and parents.
3. ☐ The evaluation examines the functioning of the Parent Advisory Council (PAC), including attention to:
   - ☐ the composition of the advisory council,
   - ☐ its role in project planning and application development,
   - ☐ the adequacy of staff and resources made available to the council (a) to prepare comments and the recommendations concerning the project application, and (b) to provide continuing direction to the project,
   - ☐ the influence of the PAC in project decisionmaking.
4. ☐ Methods are included to assess impacts of the project on educational and other institutions within the community, including attention to improving the understanding of and ability to respond to the primary language(s) and culture(s) by:
   - ☐ the school,
   - ☐ the school district,
   - ☐ other community institutions.
5. ☐ The evaluation considers project effects on classroom climates and/or the school environment. The evaluation includes attention to other effects of the Title VII project:
   - ☐ on families of participant children and their functioning within the community,
   - ☐ on the primary language group(s) served, including their participation in community bodies and processes,
   - ☐ on services available to limited-English-proficient children and their families,
   - ☐ on the community-at-large.

CHECKLIST SECTION VI

I. Planning and organizing for effective evaluation
II. Designing the evaluation
III. Measuring project implementation
IV. Measuring student performance
V. Measuring family, school, and community factors
VI. Analyzing and reporting evaluation factors

1a. ☐ Data analysis procedures have been developed to answer each major evaluation question.

b. ☐ Plans include tests of statistical significance for all areas in which this is appropriate.

2a. ☐ Data analysis procedures have been reviewed to assure that they are appropriate.

b. ☐ Statistical assumptions have been examined to determine whether they are valid.

3. ☐ Provisions have been made for appropriate reporting formats to meet the particular needs of major identified audiences, including an executive summary.

4. ☐ The evaluation report(s) are to include:

- ☐ a description of the project and its objectives,
- ☐ a description of the conduct of the evaluation,
- ☐ a description of the evaluation findings, and
- ☐ a discussion of the significance and implications of the project results.

5. ☐ Appropriate language(s) have been identified for reporting the evaluation results to designated audiences.

6a. ☐ Timelines have been established for completion of all report documents, including interim and draft reports.

b. ☐ The schedules assure that evaluation results will be available to assist project administrators, staff, teachers, and other school and district personnel in ongoing program planning and revision.

7a. ☐ Responsibilities have been assigned for presenting evaluation results to parent groups, school boards, and other interested community groups.

b. ☐ Materials have been developed to aid such presentations.

8. ☐ Procedures have been developed for eliciting comments and suggestions regarding the evaluation report.

9. ☐ Provisions have been made for project staff, teachers, aides, parents, and other relevant groups to evaluate the evaluation, to identify any problems created by evaluation activities, and to suggest modifications in evaluation procedures.

10. ☐ The evaluation report(s) includes specific recommendations for program changes where appropriate or, alternatively, identifies a number of options which might be adopted for addressing problem areas.

CHECKLIST SECTION VII

I. **Planning and organizing for effective evaluation**

II. **Designing the evaluation**

III. **Measuring project implementation**

IV. **Measuring student performance**

V. **Measuring family, school, and community factors**

VI. **Analyzing and reporting evaluation factors**

VII. **Using evaluation findings**

1. ☐ Procedures have been developed for identifying corrective actions necessary to address evaluation findings and recommendations.

2a. ☐ Provisions have been developed for revising project plans to include corrective actions addressing evaluation findings.

b. ☐ Provisions include identification of appropriate project objectives to be revised.

c. ☐ Provisions include designation of strategies to implement corrective actions.

3. ☐ Evaluation follow-up procedures are scheduled at designated time periods to assess progress in implementing corrective actions and addressing recommendations.

The above checklist highlights and outlines some major activities that Title VII program managers will need to consider when planning for, implementing, and drawing upon evaluations of their programs. Of course, all of the activities are not appropriate for every Title VII project. Each program manager must determine, based on the various characteristics of the particular program, which evaluation activities are appropriate, which have immediate priority, and which will be incorporated into future evaluation plans. Nevertheless, all of the major entry issues (I-VII) will need to be considered.

Chapter I
Planning and Organizing for Effective Evaluation

Chapter I.
Planning and Organizing for Effective Evaluation[1]

Identifying evaluation audiences, purposes, and questions

An essential step in planning a successful evaluation is identifying the various audiences with a stake in the project. These are likely to include local boards of education, project administrators, teachers, aides, student participants (if appropriate), parents, and state and federal officials. An evaluation can be planned to address the needs of multiple audiences—to provide the information each audience needs to fulfill its purposes.

Once the audiences have been identified, provisions should be made for each audience to participate in defining the purposes of the evaluation. For what purpose will each audience use the information provided by the evaluation? If the information will not be used, no resources should be expended to generate it. The anticipated use determines the focus of the evaluation—the intentions to be served and needs addressed by conducting the evaluation.

Different audiences may have different purposes. Among the purposes of project staff, for example, might be to measure student progress and to determine the degree to which specific objectives have been attained. Other purposes might be to decide the most effective approaches to use with different types of students; to determine how the project activities could be improved; to identify learning patterns of students with different configurations of language proficiency; to look at the difference in rates of instructional progress of students in different projects; to gain and maintain school board and community support for the project; to inform the parents and the community about the project.

The purposes of the school board might be to determine cost-effectiveness of the project, and/or to determine whether one approach is more effective than another. Parent purposes might include to learn whether the project activities are being implemented as planned, and whether their efforts are of sufficient importance and magnitude to serve their children's needs.

Once the audiences and their purposes for evaluation have been determined, it is essential to identify the specific questions which must be addressed to fulfill the purposes of the evaluation and to serve the needs of its audiences. For example, project administrators may need to know:

- whether staff preparation has been sufficient to effectively implement the project activities;
- whether teachers and aides have the skills necessary to use project materials; and
- whether the staff members have understood the project rationale and sequence.

Similarly, teachers may need to know:

- what parts of the curriculum students have and have not mastered;
- which classroom activities have sustained student attention, and which have not.

Curriculum developers may need to know:

- which academic and affective goals have and have not been reached;
- the ease with which teachers and aides have been able to use resource materials in the classroom; and
- the degree to which these materials were effective.

State educational agencies as well as federal project officers may need to know:

- the effects of the project, as indicated by achievement levels of student participants and by other indicators.

Failure to define the questions the evaluation will answer deprives the evaluation of focus and threatens to be costly and meaningless.

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[1]Various sections of this chapter have been adapted from *Consumers' Guide to Third-Party Evaluators of Educational Programs*. Crawsfordsville, IN: New Educational Directions, Inc., 1979 (Draft).

It is not wise for the project director or the evaluation staff to define the evaluation questions independent of significant input from relevant decisionmakers, project teaching staff, parents, and other intended audiences. Each of these groups should be consulted as questions are being defined. Furthermore, they should review the proposed questions and be asked to suggest revisions as necessary to assure that the evaluation meets their needs.

During the initial planning phase the project director, working with project staff and parents, also needs to decide the type and extent of evaluation to be performed. The literature reflects a large number of terms referring to different types of evaluation: process, product, outcome, impact, en route, formative, summative evaluation, to name a few. For purposes of this document it will be sufficient to discuss formative and summative evaluation as these two provide the information you need for program improvement (formative) and for evidence of effectiveness (summative).

Formative evaluation is continuous in nature and provides ongoing feedback both about the ways in which project activities are being implemented and about the students' progress toward attainment of project objectives. It includes concern for the ongoing processes or steps taken to reach project objectives including, for example, curriculum implementation, staff training, and involvement of parents and community members in project activities. Attention to project operations makes it possible for project managers and staff to use formative evaluation to refine and improve the project during the course of its implementation in order to ensure attainment of objectives.

Summative evaluation provides end-of-project information concerning the degree to which project objectives have been accomplished. It presents evidence of effectiveness of the project, relating results to implementation of project strategies, and making some judgments as to the statistical and educational significance of observed gains. In addition to providing immediate end-of-project information, summative evaluation may be longitudinal in nature, tracing students' progress after they have left the project in order to identify lasting effects.

Ideally, project managers employ both formative and summative evaluation strategies. The evaluation design and strategies can include both. Such a design will provide ongoing feedback of evaluation findings during the course of the project and aggregation of information at the completion of the project (e.g., the end of the school year and potentially at later times) to answer questions about cumulative project effectiveness. Evaluations, if planned appropriately, can fulfill continuous informational needs for such purposes as instructional improvement and staff training while also providing a basis for making year-end (and longer-term) assessments.

Let us consider, as an example of formative evaluation, a project which had as its primary objectives the attainment of verbal proficiency in both English and the native language by the end of an intensive three-year balanced bilingual program. Such a project would need to set reasonable standards of attainment (benchmarks) at intermittent points during each year of the project. Without sampling effects along the way, there would be danger of the students' entering the third year with insufficient incremental gains to support attainment of the final goal. Planning for formative evaluation, the evaluator would assist the staff in establishing standards which reasonably could be expected to be achieved, *given the characteristics of the target population, and the specifics of the treatment*. Plans would include provision for continuous observation and verification of the implementation of project activities, and for sampling student progress at specified points in the project. Analysis of the information generated would give the project manager ongoing feedback on: (1) any problems encountered during implementation; (2) the need for staff development and support to increase teacher effectiveness; (3) general effectiveness of methods used; (4) relative effectiveness of different methods; and (5) rate of growth of participants. Using this analysis, the project manager might: (1) decide how to avoid future implementation problems; (2) plan and carry out an appropriate staff development program; (3) modify instructional methods; (4) abandon or strengthen particular methods; and (5) determine whether the ultimate objectives are reasonable or need to be modified.

For the same project the manager will want summative or end-of-project evaluation as well, to provide evidence of program effectiveness over time. Because the project manager has established intermediate objectives (performance standards to be reached by project participants during or by the end of each of the three project years), each year may be treated separately, and a summative evaluation performed at the end of each year. Whereas this will provide *summative* data regarding project effectiveness to date, it will also provide *formative* data for subsequent activities. Analysis of the summative

reports for years one and two not only will reflect effectiveness of the project for each of those years, but also will suggest modifications needed in the subsequent year(s) in order to ensure attainment of the ultimate objectives.

The final, third year summative evaluation will use the data from interim reports and the year one and year two final reports and will provide evidence of effectiveness of the project over time. Looking at effectiveness over time is very important, because some project activities have delayed effects. Even when progress in years one and two was less than anticipated, if the activities are being implemented and there is reason to believe that the final results will prove the value of the treatment, it may be justifiable to continue the project without modification; there might be a breakthrough in year three, with terminal objectives being achieved. This informs the manager of the cumulative effect of the project. Furthermore, it suggests that expectations for the first two years should be placed in perspective, with recognition that some objectives may not be obtained until the end of the full three years of the project.

Additional, longer-term information might also be collected regarding project participants one, two, or more years after they have left the project. This would provide the opportunity to measure lasting effects of project participation. Attention might also be given to measuring long-term effects of the project on the broader school and community context, as discussed in Chapter V.

This is just one example of how evaluations—both formative and summative—can and should be used to continuously help shape the program, to gauge effects, and to support management decisions. Evaluation, according to this approach, is *an ongoing process which is integral to the implementation and management of a Title VII project throughout its operation.*

Determining the evaluation participants

This step entails determining the evaluation participants and defining the desired relationship between project and evaluation staff:

- What degree of independence is the evaluation staff to have from the rest of the project staff on a day-to-day basis?
- Is the evaluator to be internal (a member of the project or school district staff) or external (a third party, hired consultant to the project)?
- What is to be the relationship between the project evaluation staff and other evaluators within the school district?
- What are to be the ongoing roles of parents, community members, and students in monitoring the progress of the evaluation?

There are no single right answers to any of these questions, but there are some useful principles to follow in addressing them during the planning stages of the evaluation.

Principle No. 1. The evaluators should have enough independence to be objective, but should be thoroughly familiar with all aspects of the project. They should be perceived as members of the project team, fully accessible to the rest of the project staff.

Principle No. 2. Effective evaluation requires a variety of skills. The evaluator or evaluation team should include individuals with the collective range of expertise necessary to evaluate all project objectives, to accurately document the complexities of the project's school and community context, and to consider the sociolinguistic patterns and characteristics of the student participants.

Selecting evaluator(s) or an evaluation team

Care must be exercised in choosing both internal and external evaluators. A number of criteria should be considered before either an outside evaluator is selected or evaluation responsibilities are assigned to an internal evaluator or team:

- Does the evaluator understand the philosophy and goals of bilingual education?
- Does the evaluator have the technical skills and background necessary for evaluating the particular bilingual education program?
- Does the evaluator's previous activities and other current work demonstrate an evaluation approach that suits the project's needs?
- Can the evaluator devote the amount of time and attention necessary to satisfactorily address the evaluation questions?
- Can the evaluator provide training for others who are to be involved in the evaluation?

- Is the evaluator affordable, within the project's budgetary constraints?

Other criteria might also be used in selecting an evaluator. These relate to:

- Human relations and personal communication skills
- Evaluation design skills: sampling, research design, and instrumentation
- Data collection and data management skills
- Data analysis capabilities
- Reporting skills
- Management expertise.

There is no standard list of bilingual education evaluators, but there are many methods that can be used to identify evaluators. These include:

- Asking federal project officers for assistance, or contacting the federal assistance resources identified on page vii.
- Requesting suggestions from state education agencies.
- Asking colleagues for names of potential candidates, including people in other districts responsible for similar programs.
- Contacting authors of evaluation reports, journal articles, or other publications which reflect knowledge of salient issues.
- Contacting people who have given presentations applicable to project needs at conferences and workshops.
- Using the ERIC[2] system to locate pertinent evaluation reports, reading some of these reports, and contacting the authors of the best ones.
- Contacting nearby colleges or universities. Their evaluation centers or education departments are particularly likely places to find evaluators.
- Contacting independent research organizations or consulting firms having expertise in bilingual education evaluation.

The evaluation monitoring team

Evaluations can benefit from the guidance of an evaluation monitoring team. The director of such a team is usually the project manager or a designee. Such a team might also include representatives of several key user groups and a variety of participants in evaluation activities, including such persons as:

- project administrative staff
- teachers and aides
- parents and other community members
- school board members
- secondary-level students
- school personnel involved in testing
- school district evaluation staff.

The functions of an evaluation monitoring team, the roles of various members, and its overall operating procedures should be worked out during the planning phase of the evaluation. Among the functions such a team might serve are:

- Reviewing evaluation design, instrumentation, and data collection procedures to assure that evaluation questions will be answered without unduly interrupting other school activities;
- Commenting on proposed evaluation reporting formats, including attention to their suitability for addressing informational needs of key audiences;
- Reviewing draft evaluation reports to assure their objectivity, quality, and credibility;
- Serving as liaison between the evaluation team and teachers, aides, parents, and community members.

In each of these functions, an evaluation monitoring team should be encouraged to make suggestions to improve the evaluation effort. Other functions which may also be appropriate include formulating recommendations for inclusion in evaluation reports, and following-up on implementation of actions to address evaluation findings and recommendations.

[2]The Educational Resources Information Center which is accessible through most major libraries.

Training for evaluation

One particularly important aspect of evaluation planning is training of staff, parents, and other project participants for effective evaluation. In some cases, training for evaluation roles may be provided by internal or external evaluation staff. In others, it may be more appropriate to seek assistance through such resources as the federally sponsored Bilingual Education Service Centers (BESCs), or Evaluation, Dissemination, and Assessment Centers (EDACs), or nearby institutions of higher education. An important part of planning and organizing for evaluation is determining what technical preparation and training are needed for whom, how it will be provided, by whom, and at what cost.

Evaluation training may be particularly important for projects serving relatively isolated populations such as those in remote rural areas, in Alaskan villages or on Hawaiian Islands, or for projects serving pupils from a primary language which is spoken by a very small population or is not written (e.g., certain Native American languages).

For such projects, experienced evaluators may not be available on an ongoing basis to assist in planning or carrying out the evaluation. Project administrators, teachers, aides, parents, other community members, and students may need specialized training to enable them to participate actively in a *custom-designed evaluation.*

Evaluation costs

Another central element in evaluation planning is determining evaluation costs. There is no way to come up with a precise estimate of what an evaluation will cost until most of the evaluation tasks are specified, and even then it takes some expertise to closely predict how long each task will take and how much it will cost.

Nevertheless, there are some principles which can be used in budgeting for evaluations. First, the "five percent rule of thumb" provides a useful, overall benchmark for evaluation budgeting. That is, in determining an overall evaluation budget, it is reasonable to expect that approximately five percent of project funds might be devoted to evaluation. In some unusual cases, the cost might be higher, but if the proposed figure substantially exceeds the five percent level, a project manager should examine the proposed evaluation budget carefully to identify potential economies—evaluation costs represent an expenditure of funds which might also be used for other significant priorities.

In estimating evaluation costs, it may also be useful to ask directors of other projects of about the same size and scope what their costs for evaluation have run. A copy of their evaluation design can also be useful for developing an evaluation budget based upon task comparisons.

The project manager should also work with school district business staff in judging the appropriateness of the proposed evaluation budget. Business staff should be asked to identify any federal, state, or local regulations or guidelines which may have to be followed in accordance with general budgeting policies. In addition, business staff may be asked to help in identifying potential economies in the evaluation budget (for example, joint evaluation activities with other special projects).

If proposed evaluation costs exceed available resources, a number of strategies may deserve consideration. The first is to seek an evaluation design which builds maximally upon available data. This might include, for example, use of test scores which teachers use for diagnostic/prescriptive instruction; use of information from student report cards; and use of data from student records such as attendance and absenteeism data. This approach can have the secondary benefit of minimizing disruptive effects of evaluation.

It is also valuable to draw upon ongoing evaluation procedures of the local educational agency (LEA). For example, many school districts conduct district-wide student testing programs. Others have a staff of experts to perform evaluations of other district categorical aid programs (e.g., Title I, Emergency School Aid Act). Others conduct a wide array of research, needs asesssment, and evaluation activities. Coordinating the Title VII evaluation with other LEA evaluation activities can lead not only to substantial efficiencies but also to joint efforts aimed at studying the interrelated effects of multiple categorical aid programs which may be difficult to separate by any one project. However, it is important to assure that other sources of data such as local and state testing programs are suited for use with project participants and can provide a suitable basis for measuring project objectives.

Two final points should be considered in determining the costs of evaluations. The first is that internal evaluators cost money, just as do external evaluators, and must be budgeted. The costs of such evaluation activities are often found to be surprisingly large.

The last point is that the benefits of a good evaluation are typically worth the costs expended. It may cost $10,000 or even $50,000 to determine how a project is doing—but frequently the benefits in terms of correcting problems, better targeting of resources, assuring positive student outcomes, and justifying continued funding far outweigh the costs.

Scheduling evaluation activities

Evaluation activities, like other project activities, should be explicitly scheduled. Working with the evaluation staff, the monitoring team, and other evaluation participants, timelines should be developed for:

- defining evaluation audiences, purposes, and questions;
- determining the evaluation design, instrumentation, data collection and data management procedures, and data analysis methods;
- submission of interim and final reports, including all drafts for review by project managers and others;
- formally communicating evaluation findings to all major audiences;
- reviewing the degree of implementation of recommendations stemming from the evaluation findings.

Target dates—particularly reporting dates—should be agreed upon by project staff, by evaluators, and by major potential users. It is this kind of joint planning which can assure the extremely important contribution of *timelines for decisionmaking* of evaluation activities, thereby enhancing the likelihood of use of evaluation findings and ensuring that the human and financial resources they require yield a significant benefit to the project.

It may be useful to develop a monitoring device for assuring that evaluation activities are carried out on schedule. The example schedule sheet for evaluation activities given on pages 7 and 8 illustrates the type of format which may be useful to a Title VII project manager who reviews the progress of an evaluation. However, the scheduling format should have to be adapted to an individual project's needs to assure that it includes attention to each of the principal evaluation activities of that project.

Finally, it is important to note that scheduling of evaluation activities should consider unique attributes of particular projects. For example, projects serving migrant populations may need to adjust pre- and post-testing schedules to assure that testing occurs when students are in school. Scheduling of testing may need to consider ways of administering tests to students from the large number of language backgrounds served by the project. Reporting of information to parents may need to be designed so as not to interfere with other responsibilities (for example, lengthy work days of agricultural workers). And reporting of findings to other key audiences—such as Indian Tribal elders—may need to be carefully planned in terms of both timing and location to assure these audiences' availability.

Summary

After completing this chapter, you should be able to manage the steps involved in planning and organizing for effective evaluation. Among the activities you should be prepared to oversee are:

- Identification of principal audiences, purposes and questions for the evaluation;
- Selection of participants in the evaluation and designation of their roles and responsibilities;
- Development of specialized evaluation training procedures;
- Budgeting and scheduling for evaluation; and
- Continuous monitoring of evaluation activities to assure both timelines and ongoing feedback of results to project staff.

The detailed checklist on page 9 is intended to assist you in performing these overall evaluation management responsibilities.

FIGURE 2: EXAMPLES OF SELECTED EVALUATION ACTIVITIES

EVALUATION ACTIVITIES SCHEDULE

Evaluation Activity	Person Responsible	Date of Initiation	Date of Completion	Comments
0.0 Development of Evaluation Related Components of Application				
0.1 Assist in conducting needs assessment				
0.2 Work with project staff, parents, school district administration, school board and students in developing general evaluation approach				
0.3 Write evaluation section of application in conjunction with a team of project staff and participants				
2.0 Evaluation Planning				
2.1 Determine specific information necessary to address evaluation audiences, purposes and questions				
2.2 Identify specific evaluation participants and evaluation monitoring team				
2.3 Determine needs of project staff, parents and community for evaluation training				
2.4 Provide evaluation training to project staff, parents and community, or arrange for its provision				
•				
•				
•				
•				

FIGURE 2: EXAMPLES OF SELECTED EVALUATION ACTIVITIES (Cont.)

EVALUATION ACTIVITIES SCHEDULE (Continued)

Evaluation Activity	Person Responsible	Date of Initiation	Date of Completion	Comments
3.0 Designing the Evaluation				
3.1 Identify procedures for assessing attainment for each specified objective				
3.2 Develop surveys, questionnaires, and other instruments				
3.3 Determine data analysis methods				
•				
•				
•				
•				
4.0 Measurement of Project Implementation				
•				
•				
• *[Steps for each evaluation component should be designated]*				
•				
•				
•				
7.0 Utilization of Evaluation Findings				
7.1 Identify corrective actions necessary to address evaluation findings				
7.2 Revise project plans to include corrective actions				
7.3 Review progress in implementing corrective actions				

CHECKLIST SECTION I

I. Planning and organizing for effective evaluation

1a. ☐ Audiences and purposes of the evaluation have been determined.

b. ☐ Purposes reflect needs of project staff, district administration and board, and requirements of state and federal (USOE) agencies.

2. ☐ The evaluation questions have been identified which must be addressed to fulfill the evaluation purposes and to serve the needs of its major audiences.

3a. ☐ Participants in the evaluation have been identified and involved in the planning of the evaluation.

b. ☐ Relationships between project staff and evaluators, internal and external evaluators, and between project evaluators and other district evaluation staff have been defined.

c. ☐ Ongoing roles of parents, community members, and students in evaluation have been defined.

4. ☐ An evaluation team has been established which represents expertise in all areas relevant to evaluating the entire project.

5a. ☐ Training needed by evaluation participants has been identified, including specialized training necessary for isolated projects or those serving languages spoken by small populations.

b. ☐ Methods have been established for providing such training.

6a. ☐ Evaluation costs have been estimated and judged for appropriateness in the context of the total project budget.

b. ☐ Potential efficiencies associated with coordination with other local evaluation activities have been identified.

7. ☐ A schedule of evaluation timelines has been developed in conjunction with major evaluation participants and users.

8a. ☐ An evaluation monitoring process has been established.

b. ☐ Roles of the monitoring team have been defined users.

9. ☐ Special issues pertinent to the evaluation of the particular project have been identified.

Chapter II
Designing the Evaluation

Chapter II. Designing the Evaluation

Detailing the Overall Evaluation Design

During the evaluation planning stage, general decisions are made regarding evaluation audiences, purposes, and questions. In the design phase of an evaluation, detailed plans are developed for its conduct and management.

This chapter discusses:

- how to specify objectives,
- how to set up an evaluation design, including how to handle two issues that arise in measuring student achievement (i.e., selecting a comparison standard and determining a sampling plan),
- how to monitor the logistics of data collection and management,
- how to plan the data analysis.

Succeeding chapters will more directly address measuring specific areas, such as project implementation, student performance, school, family and community factors, as well as analyzing data and reporting and using the results of an evaluation.

When program managers, teachers and parents raise questions about a program or request particular information, they are often asking, though couched in different terms, about the objectives of the program, whether these objectives have been attained, and what factors seem to be associated with the attainment of objectives. Although some evaluations are designed without specifying objectives in advance and use descriptive techniques to find out what a program is doing, most evaluations are more focused and look at specific program objectives and whether they are being attained.

Hence, evaluation designs typically start with specifying program objectives. Usually what happens when program staff and managers, parents, faculty, and others try to define specifically what they want the program to accomplish, a large and unwieldly list of objectives emerges. The list then must be pared down to manageable size, usually by asking questions about how important an objective is and whether one needs to have information about it this year. To do this, it is useful to survey informational needs of various audiences (formally or informally), to identify evaluation priorities, and to determine what objectives need and need not be evaluated during a particular year. A variety of objectives should probably be included annually, ranging from objectives about student achievement, to faculty and parent attitudes about the program, to the adequacy of materials and teacher preparation. A variety of time periods also should be covered such as objectives that should be accomplished within a few months to those that may be measured only after a year or several years. Objectives also may vary in terms of the number of time periods needed to collect data. If an objective relates solely to whether something was accomplished, data may need to be collected only once, but if one is interested in change data, such as how achievement scores or attitudes change over time, then multiple time periods are needed (usually at least prior to the beginning of the program [a pretest] and after the completion of a program or year [a posttest]).[1] If an objective has been measured repeatedly, and the project has been found to be doing well on it year after year, it may not warrant continued assessment annually, thereby freeing up resources to evaluate other objectives.

Let us assume, by way of illustration only, that the Title VII project wants to address six objectives in an evaluation this year. These could be:

1. By June, 1980, 75% of the project's limited-English proficient students enrolled in bilingual classes will show at least one quartile gain in English language skills as measured by the CTBS.
2. By June, 1980, 80% of the project's fluent-English speaking students will demonstrate at least one year's growth in English language skills as measured by the CTBS.
3. By June, 1980, 80% of the project students enrolled in Spanish classes will demonstrate a pre-established gain in Spanish language skills as measured by teacher-made tests.
4. By June, 1980, all project staff will demonstrate an increased understanding of the academic needs and cultural aspects of the target students as measured by district-developed teacher evaluation forms.

[1]This section derives in part from *Women's Studies: Evaluation Handbook* by Mary Ann Millsap, Naida Bagenstos, and Margaret Talburtt. Washington, DC: GPO (in press).

5. The parents of students in bilingual classes will have positive attitudes toward the program and feel that their children are making significant gains and, furthermore, that their children have a positive attitude toward school as a result of being in the program.

6. During the course of the year, the Title VII project director will explore a number of avenues to obtain funds and personnel to provide necessary counseling services to former students in Title VII projects who are now enrolled in regular English classrooms.

The first four objectives are described in more detail in the Sample Evaluation Design Form charts on pp. 13 and 14, where specific instruments, time schedules, procedures for data collection and analysis, and staff responsibilities are designated. This level of specificity should be detailed for each objective.[2]

The objectives on the charts regarding student achievement essentially rely on the use of a standardized achievement test, the Comprehensive Test of Basic Skills (CTBS), and a Spanish reading test, each administered at the beginning and end of the school year. Although project managers would be a better judge, these do not seem to be overly ambitious objectives. They do not, for example, assert that all students will show a certain level of gain.

When one examines the data collection and analysis procedures, one sees that more data are being collected than referenced in the objectives, most notably due to the introduction of a comparison group of students. The use of comparison groups means that not only is one interested in gains by students in bilingual classes, but also gains compared to some other group of students.

Furthermore, the data collection and analysis activities indicate that the results of the pretest will be a source of recommendations for curriculum adjustments. Such recommendations could include creating individualized learning sequences for students based upon the analysis of subtest results. If this is the intent, then we have a variety of objectives: some relate to changes in achievement of project students; some to changes in achievement of project students compared to changes in achievement by another group of students; and finally, a process objective on using test score data to create individualized learning sequences for students in the bilingual program. The point is that objectives, instruments, and data collection and analysis procedures must be carefully linked with each other, both to assure that what one wants to measure is measured and also to make sure that if other information is included, it is recognized in advance. The intent of the example has been one of trying to show that one set of data collection activities may in fact be used to inform multiple objectives, including an objective directly related to project management and operations.

The fourth objective noted as Number 1 on the second page of the chart relates to increased staff understanding of the academic needs and cultural background of students in the bilingual program. This objective is very difficult to measure on the basis of any written survey instrument, so results from such a survey instrument should be corroborated through another method, in this case through classroom observation. Difficulty in measuring a given objective, however, is not a reason for excluding that objective from the evaluation. Since teaching and learning are so closely interrelated, it is important to attempt to address process objectives. If there were enough bilingual classes and if assumptions could be made about the comparability of students among classrooms, it would, in fact, be useful to compare student performance among the different teachers. Such analyses could lead to program recommendations for either more inservice training for teachers or for shifts in teacher's classroom responsibilities. As with the discussion of the first three objectives, the idea is to keep foremost in one's mind how these data can lead to program improvement.

For the fifth objective regarding parents' attitudes (which actually involves multiple objectives because parents' attitudes about several topics are included) one would need to develop some kind of data collection instrument. In addition to developing items addressing each area mentioned, the design process should also address such questions as:

1. Should a written questionnaire or an oral interview be used?

2. Should questions be asked in English and/or in another language?

3. Should one ask what the parents perceive as being the goals of the program?

4. Should parents be contacted once or several times during the course of the year?

5. Should questions be asked about how to change the program?

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[2]Procedures for developing program objectives, and references which include detailed illustrations of measurable objectives, are described within most standard evaluation texts.

FIGURE 3: SAMPLE EVALUATION DESIGN FORM[1]

Component: Staff Development

Objectives	Instruments	Data Collection/Analysis Procedures Activity	Dates	Person(s) Reponsible
STAFF DEVELOPMENT				
1. By June, 1980, all project staff will demonstrate an increased understanding of the academic needs and cultural aspects of the target students as measured by district-developed teacher evaluation forms.	District-developed Teacher Evaluation Forms (TEFs)	1. Administer district-developed (pre) teacher and aide evaluation form.	October 1, 19___	Project Coordinator
		2. Analyze all staff development assessment data for inclusion in interim report.	December 1-15, 19___	Evaluator
		3. Conduct classroom observations and complete classroom observation checklist.	Ongoing	Project Director and Resource Teacher
		4. Administer district-developed (post) teacher and aide evaluation form.	May 15, 19___	Project Coordinator
		5. Analyze all staff development assessment data for inclusion in final report.	June 15-30, 19___	Evaluator
		6. Prepare results of this component in both narrative and tabular form for inclusion in the final report.	June 15-30, 19___	Evaluator

[1]This material has been adapted from Etherson, E. J., Moesser, A. I., and Sancho, A. R. *The CHESS Guide to Project Evaluation*, Diamond Bar, CA: CHESS and Associates, Inc., 1979.

FIGURE 3: SAMPLE EVALUATION DESIGN FORM[1]

Component: Instruction-(Language)

Objectives	Instruments	Data Collection/Analysis Procedures Activity	Dates	Person(s) Reponsible
I. LANGUAGE A. **English** 1. By June, 1980, 75% of the project's limited-English proficient students enrolled in bilingual classes will show at least one quartile gain in English language skills as measured by the CTBS.	CTBS Form Q, Level 3	1. Administer pretest (CTBS and Spanish Reading Test) to appropriate project participants and control group.	October 1-15, 19___	Staff
		2. Record pretest results.	October 15-30, 19___	Project Coordinator
		3. Analyze and summarize pretest results.	November 1-15, 19___	Evaluator
		4. Prepare recommendations for curriculum based on pretest results.	November 15-30, 19___	Evaluator and Resource Teacher
2. By June, 1980, 80% of the project's fluent-English speaking students will demonstrate at least one year's growth in English language skills as measured by the CTBS.		5. Carry out prescribed activities based upon recommendations from pretest results.	November 15-30, 19___	Evaluator and Resource Teacher
		6. Prepare narrative for this component for inclusion in interim report.	December 1-15, 19___	Evaluator
B. **Primary Language— [Spanish]**—also applicable to other languages—Cantonese, Tagalog, Portuguese, French, Vietnamese, Navajo, etc. By June, 1980, 80% of the project students enrolled in [Spanish] classes will demonstrate a pre-established gain as measured by teacher-made tests.	Teacher-made [Spanish] Reading Test	7. Administer posttest (CTBS and [Spanish] Language Test) to appropriate project participants and comparison group.	May 1-15, 19___	Staff
		8. Record posttest results.	May 15-20, 19___	Project Coordinator
		9. Analyze and summarize posttest results.	May 20-30, 19___	Evaluator
		10. Make comparisons between pre- and post-test results.	June 1-15, 19___	Evaluator
		11. Prepare results of this component in both narrative and graphic form for inclusion in the final report.	June 15-30, 19___	Evaluator

[1]This material has been adapted from Etherson, E. J., Moesser, A. I., and Sancho, A. R., *The CHESS Guide to Project Evaluation,* Diamond Bar, CA: CHESS and Associates, Inc., 1979.

Some of these questions are technical ones about how to obtain the most valid information, while others relate to program management concerns, including whether the staff is building a strong parent base for the program and whether the parents understand what the program is trying to accomplish. Information about these topics could then be used to decide whether outreach activities with parents need to be strengthened, including whether more emphasis on program goals should be made.

The sixth objective is a process objective, that is, one is interested in how an activity takes place (finding support for counseling services) rather than in the impact of an activity. Items on an instrument to address this objective may include:

- Who did the program manager meet with?
- What problems were encountered?
- How were problems resolved?
- What remains to be done?
- What are the realistic prospects for supporting counseling services?

Clearly related to management concerns, the information for this objective can assist in determining the level of effort one can devote to this activity.

Just as we have done with the six hypothetical objectives, Title VII project directors must do with their own particular project objectives. Evaluators can assist in defining measurable objectives, in refining objectives, and, in conjunction with project staff, can develop a detailed evaluation design encompassing these objectives. The plan must designate instruments for measuring the attainment of each objective; it must also specify data collection and analysis procedures, indicate timelines, and designate staff responsibilities. Furthermore, it is the responsibility of the evaluator to describe the evaluation design to program managers in plain English. If the evaluator cannot do so, program managers should find another evaluator. It is the responsibility of the program manager to review the detailed evaluation plan to make sure it will address the principal audiences, purposes, and questions of the evaluation in a timely fashion using sound study procedures. The program manager must ask throughout the design process, "How can I use this information to improve my program?"

Design Issues Related to Student Growth

While other aspects of design, including the logistics of data collection and data analysis, are described later in this chapter, it may be useful here to focus on two design issues related particularly to student achievement: the use of comparison groups and sampling.

Selecting a comparison standard. A comparison standard is used to answer two basic questions:

- Did the project cause a measurable change?
- What was the magnitude of the change caused by the project?

One of three kinds of reference groups is usually most appropriate as a comparison standard for evaluating Title VII bilingual education projects:

- **a comparison group** of similar individuals (contemporaneous)
- **statistical norm groups**
- **historical comparisons** of project participants

A fourth type of reference group—the control group— is rarely appropriate for evaluating Title VII projects. This is because forming experimental and control groups involves randomly assigning students as participants and nonparticipants in a project, with nonparticipants receiving *no treatment*. Due to ethical reasons, as well as the legal mandates stemming from the *Lau vs. Nichols* Supreme Court decision, it is rarely appropriate to use a control group of students of limited-English proficiency (LEP) that receives no special treatment as a comparison standard for a Title VII evaluation.

In contrast, a *comparison group* is frequently applicable to Title VII project evaluations. A comparison group consists of an existing group of comparable individuals who are not project participants. For example, a comparison group for a group of LEP students who are participating in a Title VII bilingual education project in one high school may be a group of similar students in a high school in a neighboring district who are participating in an English as a Second Language (ESL) program.

Another type of comparison group is a group of comparable individuals who are participating in a different project having similar objectives. For example, a Title VII project classroom which includes use of primary language instruction throughout the entire day could have as a comparison group a classroom in a school having a state-funded program of pull-out bilingual instruction for two hours a week.

Use of a comparison group in an evaluation provides a basis for addressing the question: What magnitude of change did the project produce compared to some other educational activities? However, an important potential limitation in using a comparison group must be considered and adjustments may have to be made by the evaluator, particularly if the comparison group is within the same school or nearby. Spillover from the project to other groups in the school may occur. This is referred to as "contamination." Frequently, if an innovative method in a new project is achieving good results, some or all of its methods will be adopted by the comparison (or control) group teacher(s). If this occurs, the results of the evaluation will seriously underestimate project effects.

An alternative comparison standard is based upon a *statistical norm group.* These statistics may be derived from local, regional, or national norms—usually on standardized tests. However, considerable care must be exercised by the evaluator in using statistical norm groups. They are generally based upon performance of a standardized group which represents a broad population of students, and therefore are rarely, if ever, comparable to the particular project group.

A final type of comparison standard—*historical data*—involves chronological periods. These periods may involve classroom lesson units, report card periods, semesters, school years, or any other time block in which identifiable project effects can reasonably be observed. The comparison can involve viewing the performance of a group of project participants with its own past rate of performance.

The fact that instructional programs typically operate on a school year cycle, with students changing position but other characteristics of the program repeating the preceeding year's activities, creates a handy evaluation opportunity that is often overlooked. Year-to-year project cohort comparisons from the same school thus typically provide the most economical and effective comparison standards possible. These groups are also most convenient to the project manager because they are within the administrative province of the project.

Particular problems which are found in using any comparison standards for evaluating bilingual education projects pertain to (a) high mobility rates and (b) the "exit" of pupils into the regular school program. If only a portion of pupils remain in the project for the entire period being evaluated—as is frequently the case in projects serving migrant populations—the evaluator must make sure that the evaluation design assesses impact of the project in relation to length of participation. For example, it may make sense to divide project participants into those having less than 75% attendance rates and those attending project classes 75% or more of the time. Results can then be analyzed and presented separately for the two groups.

Serious problems of underestimation can occur as a result of students leaving a bilingual project classroom when they have been classified as no longer of limited-English proficiency. The 1978 amendments to Title VII require an evaluation of students after two years of their initial enrollment in a Title VII project to determine the need for continued services. The resultant "exit" of high-achieving students from the program can lead to elimination of the students who have demonstrated the most progress from the project group.

There are methods that evaluators can use for dealing with this problem, such as categorizing students into distinct groups, measuring progress of each group separately, and determining appropriate comparison standards for each. Among the subgroups which might be constituted are:

- participants for one full school year,
- participants for specified time periods (e.g., two, three years) who have not been placed in the regular school program,
- participants for specified time periods who were later placed in the regular school program.

In conclusion, the selection of an appropriate comparison standard entails consideration of many important issues. A project manager should request the evaluator(s) to propose comparison standard(s) as part of the evaluation design and then the project manager and/or an evaluation monitoring team should ask the evaluation staff to provide information indicating that:

- if a comparison group is proposed, it is comparable to project participants,
- if a statistical norm group is proposed, it is based upon a comparable population,

- if a historical comparison is proposed, it will not be invalid due to student transiency or "exit" rates.

Regardless of what comparison standard is proposed, the evaluator(s) and project staff should make certain that:

- the comparison standard is feasible to implement,
- the comparison standard(s) will not under- or over-estimate project impact,
- the comparison standard is appropriate for the entire group of project participants—or, alternatively, subgroups of participants are each to be compared with appropriate comparison standards.

Determining the sampling plan.[3] This step involves determining which project participants and comparison group individuals need to be tested, interviewed, observed, etc., in collecting evaluation data. A basic decision which must be made is whether data should be collected from the entire set of participants involved in these groups or only a part of the participants. If only a portion of the participants is used, that portion is called a *sample* and the process used to select it is called *sampling*.

Sampling procedures are important because they allow the evaluation to be conducted economically. A sample which is carefully selected permits the evaluator to make inferences and draw conclusions about an entire set of participants. Sampling is especially appropriate for project evaluation because such evaluation is usually intended principally to yield information about the effects of the project on students as a group, not detailed information on each individual participant.

A principal advantage of sampling relates to lowered evaluation costs. It is less expensive to gather and analyze a hundred than a thousand test scores, for example. Also, the economies resulting from sampling may allow an evaluation to include multiple measuring procedures for a given objective rather than simply using one instrument—often an important benefit. For example, a questionnaire may be developed to assess student attitudes toward school. But it may be questionable whether LEP students' written responses—perhaps on a questionnaire written in English—accurately reflect their attitudes. Use of interviews, observations, attendance records, and records of participation in school activities with a sample of the students can provide additional attitudinal data.

If sampling is to be considered, several questions must be asked of the evaluator:

- Will a sample provide the accuracy which is necessary?
- Is the participant population so large that sampling is really more efficient than using the total population?
- Does the participant population consist of several distinct subgroups, each of which should be sampled separately?
- What are the required sample size and the appropriate sample design?

For the most part, the population of students participating in bilingual education projects is heterogenous. Not all students in these programs are of limited-English proficiency. Additionally, some projects may include youngsters from many different primary language backgrounds—sometimes within the same classroom. Furthermore, students vary in degrees of language proficiency and dominance. Differences in language backgrounds and characteristics and other variables may require that subpopulations be identified (for example, in relation to primary language, to 'Lau' category, etc.), and sampling applied to each subgroup. If evaluation questions pertain to differences among project subgroups, then these groups will need to be examined separately, and a sampling strategy must consider this.

The generalizability of sample findings is influenced by both sample design and size. The accuracy of the findings from a sample as they relate to the total participant population is predicated on the sample being representative or typical of that population. The technique most frequently used to obtain representativeness is *random sampling*.

It is important to note that sampling efficiencies can be achieved through using portions of measurement instruments as well as through sampling within populations of individuals. This is referred to as *item sampling*, and may, for example, involve each pupil in the project completing only a randomly chosen part of a measuring instrument. In some cases, person-sampling and item-sampling can be combined for even greater economies.[4]

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[3]Parts of the material in this section and in the rest of this chapter have been adapted from *California Evaluation Improvement Project*, Sacramento, CA: California State Department of Education, 1975.

[4]This is referred to as matrix sampling.

The proper application of sampling techniques requires a fair degree of expertise. However, the potential economies, reduction in testing time, and possibility of freeing resources for use in collecting alternative types of information confirm the importance of sampling. Project managers should request that evaluators identify for them potential sampling designs, and they or an evaluation monitoring team should review these designs with the evaluator(s) to determine their applicability.

Considering Other Special Programs

It is frequently the case that schools and school districts that participate in Title VII projects also receive other sources of federal, state, or local funding to support special programs. Other sources of federal funding may include, for example, ESEA Title I compensatory education funds, migrant education funds, Emergency School Aid Act funds, or such funds for Indian education as Johnson O'Malley or Indian Education Act funds.

A particularly difficult problem is determining if and how the evaluation should attempt to disentangle effects of several specially funded programs. It may be feasible to identify some of the unique effects of the Title VII project through such strategies as identifying classes or students who participate in the Title VII project only and comparing their growth with that of classes or students who participate in Title VII and other programs and with that of classes or students who, although participating in other program(s), are *not* participants in the Title VII project. However, separating the effects of multiple funding sources may be extremely difficult or even impossible (e.g., if all participants are in both of two specially funded programs).

In designing the Title VII evaluation, it is important that the Title VII project staff and evaluators meet with other special program staff to discuss issues concerning multiple sources of special funding and services and their evaluation implications, and to identify methods for coordinating evaluation activities. The Title VII evaluation should, at a minimum:

- Identify other special programs which may affect project implementation and outcomes,
- Either make an attempt to identify the separate effects of the Title VII project or indicate what effects cannot be uniquely attributed to it apart from other special programs.

In addition, the project manager should assure that efforts have been made to coordinate evaluation activities (a) as a basis for joint reviews of evaluation results, (b) in order to minimize the disruptive effects of evaluations on special programs and their participants, and (c) as a means of achieving evaluation economies.

Furthermore, it is important to assure that, when multiple special programs serve a particular target population, evaluations are attentive not only to the single program objectives but also to over-arching community objectives. For example, in the case of programs for Native Americans, an Indian school board may have certain objectives pertaining to development of written instructional materials in the native tongue and maintenance of that tongue as a spoken language. Other objectives may relate to reinforcing the role of tribal elders within the Indian culture and promoting their role in transmitting the tribe's oral tradition and history to the children. These objectives which relate to survival of the Native American culture and other objectives in the areas of Indian self-determination (responsibility for developing program goals and for hiring personnel) may reflect major community objectives. The Title VII evaluation should include attention to project objectives in these areas as well as to other more usual Title VII objectives. In addition, the evaluation design may call for special methods consistent with these community objectives (for example, involving tribal elders in identifying project strengths and project components needing improvement).

Logistics of Data Collection

Careful attention must be given to the planning of data collection activities if accurate data are to be obtained. In addition, such careful planning is necessary to assure that evaluation activities do not unnecessarily disrupt project activities. In particular, it is important that the project director or an evaluation monitoring team make sure that the evaluator has:

- made arrangements with school, project, and district personnel for all testing and other data collection
- identified the personnel who will collect data, planned for training of school staff who are to be involved, and scheduled training at a time which is convenient

Data collection is frequently a complicated activity. It is advisable for evaluators to prepare for school staff an information sheet describing each major planned data collection activity. Such information should indicate:

- **When** the data are to be collected (e.g., dates and times: October 2, from 10:00 a.m. to 11:45 a.m.)
- **Where** the data are to be collected (e.g., Classroom A)
- **Who** is going to collect the data (e.g., the name and title of the person responsible)
- **On or from whom** the data are to be collected (e.g., the entire classroom or the names of sample students)
- **How** the data will be collected (e.g., the name of the instrument)
- **Safeguards** to assure data will be collected accurately and on time

The last item—designating necessary safeguards to assure that data are collected properly—can significantly reduce waste of evaluation resources. Instruments must be applied correctly, data must be recorded according to directions, absences of some members of the evaluation sample must be accounted for, and steps must be taken to correct or note problems which might yield inaccurate results. Such quality control procedures are essential if costly data collection activities are to be fruitful and if evaluatons are to measure what they are intended to measure.

Planning for Data Analysis

While it is not always possible to specify in advance all of the data analyses to be conducted, the evaluation design plan should include a general analysis plan and examples of how data will be presented when analyzed. The analysis plan should address each objective in turn.

The prevailing assumption about data analysis plans is that they are statistical and require considerable technical expertise, but as one can see from the hypothetical objectives presented earlier, this is not always the case. For objectives related to student achievement and measured by standardized tests, one does need to have some technical background. If one is not confident about one's own background in the area, it may be useful to secure consultant services, especially for the review of the plan. For objectives related to monitoring the progress of an activity or to ascertaining opinions about the program from other parties, data analysis may consist more of the use of descriptive statistics (e.g., percentages of parents expressing certain views) or of prose along the lines of a journalistic investigation. Methods of data analysis will be described more fully in Chapter VI.

Summary

After working with the material in this Chapter, you should be able to make management decisions regarding such issues as:

- Is the evaluation design well-suited to measuring your Title VII project's objectives and to considering effects of other special programs which also operate in project schools?
- Have appropriate comparison and sampling procedures been identified?
- Have provisions been made to assure smooth data collection and sound data analysis?

The checklist on page 20 details the evaluation design issues discussed in this Chapter.

CHECKLIST SECTION II

I. Planning and organizing for effective evaluation

II. Designing the evaluation

1a. ☐ The overall evaluation design has been developed in conjunction with project staff, appropriate consultants, and other relevant participants.

b. ☐ The design includes attention to:

- ☐ identifying evaluation priorities,
- ☐ assessing attainment of each objective that is to be evaluated,
- ☐ data collection instruments and methods to be used,
- ☐ data analysis procedures,
- ☐ time schedules, and
- ☐ staff responsibilities.

2a. ☐ The evaluation design specifies a comparison procedure to estimate what the performance of participants would have been in the absence of the project.

b. ☐ The methods to be used to identify nonparticipants for comparison or to utilize another comparison standard (e.g., a historical or a statistical comparison) have been identified.

c. ☐ The comparison procedure has been reviewed to assure that it is sound.

3. ☐ Sampling procedures have been identified, if applicable, and steps have been taken to assure that sample results will be representative of the entire project population.

4a. ☐ The evaluation design identifies and takes into consideration other special programs which may affect project implementation and outcomes.

b. ☐ Title VII evaluation activities have been coordinated with those of other specially funded programs.

c. ☐ An attempt is to be made to identify the separate effects of the Title VII project, or an indication is to be given of the effects which cannot be attributed to the Title VII project apart from other special programs which are also operating.

5. ☐ Procedures have been established which assure sound data collection and which take into account potential logistical problems.

6. ☐ Data analysis procedures have been identified which will address evaluation questions and which are appropriate for use with the project data.

Chapter III
Measuring Project Implementation

Chapter III. Measuring Project Implementation

The Guidebook has thus far considered the planning and organizing phase of evaluation and some important issues with regard to evaluation design. The next three chapters are concerned with a greater degree of specificity. Having determined one's audience(s), the important questions to be answered in the evaluation, and the appropriate design of the overall evaluation, a manager's next set of evaluation decisions focuses on obtaining information or data to answer the evaluation questions.

Chapters III, IV, and V deal with a variety of issues related to obtaining information, i.e., measuring project implementation, measuring student performance, and measuring school, family, and community factors. The reader should keep in mind, as we turn to a discussion of "measurement," that measurement need not be restricted to traditional notions of tests. As the following chapters suggest, there are a variety of ways to measure, i.e., to systematically gather information.

Evaluation of bilingual education projects may be different from evaluations of other educational programs in several ways. One pertains to the unique difficulties often faced in project implementation and the importance of including an assessment of the implementation as part of an evaluation.

Bilingual education projects frequently have had to cope with problems such as insufficient numbers of adequately trained staff or an absence of appropriate materials and curricula. Particular project activities which may potentially be effective may not be fully implemented and may, therefore, appear to have little or no impact.

Evaluations which measure the degree to which proposed project activities are implemented and the quality of that implementation can separately analyze the effectiveness of projects in well-implemented and in less-fully-implemented sites. Data regarding level of implementation also have direct utility to project staff. Information can be provided by evaluators to the school administration and project staff on such matters as:

- the extent of utilization of planned instructional approaches,
- the degree of preparation of teachers, aides, and other staff,
- the fit between the available instructional materials and the performance levels of LEP students.

A variety of techniques can be used to assess project implementation. The sampling techniques discussed in Chapter II can allow for use of several techniques while keeping evaluation costs reasonable. Frequently used procedures include:

- Interviews,
- Questionnaires,
- Implementation checklists,
- Observations (in classrooms, at staff and administrative meetings, at parent advisory council meetings),
- Routine reports.

Since implementation checklists may be particularly useful for determining the degree to which project activities have been installed, a checklist format for measuring implementation is given on page 25. Numerous variations exist on this particular checklist structure. It is intended not as an exact format which should be used by all projects, but as an example which might be adapted to meet project needs of many different types of Title VII projects. The implementation characteristics specified in the left column are simply illustrative and would vary from project to project. In addition, a complete implementation checklist would include a far greater number of program factors than are indicated on the illustrative format.

This type of checklist can be used for at least four purposes. It can be used to identify those activities which, although specified as project components, are not evident and may not be taking place. It can also be used to determine the level of implementation of project activities which are taking place. Additionally, it can be used to record comments regarding such matters as obstacles to successful implementation or factors which appear to be facilitating implementation of planned project components. Finally, by

designating proposed project activities in considerable detail, it can be used as a format for observation of classrooms or other project activities, as demonstrated in the illustrative classroom implementation checklist on page 26.

It may be wise for evaluators to obtain additional information through interviews with bilingual and regular teaching staff as part of the evaluation of project implementation. This can provide valuable insights regarding (a) perceptions of teaching staff regarding project operations and necessary changes, (b) perceptions and attitudes of the regular teaching staff regarding the bilingual program, and (c) morale among project teaching staff.

Other types of information regarding project implementation can also be extremely useful in project management. Among these are descriptive data regarding:

- the characteristics of students being served in bilingual education projects,
- the types of educational services being provided,
- the length of student participation in the project,
- the criteria being used to determine language proficiency as a basis (a) for initial placement of students in the bilingual project and (b) for exiting students from the bilingual project into the regular school program.

Several of these matters relate to complex measurement issues, but are nevertheless important to examine in order to determine whether project resources are being targeted to priority needs and whether implementation objectives are being met.

In examining the characteristics of students being served, evaluators can assist project managers by determining:

- the adequacy of language assessment instruments used for identifying and placing LEP students,
- the proportion of students served in Title VII funded projects that are and are not LEP,
- the criteria used for placing students from English language backgrounds into bilingual education projects.

An examination of the types of services being provided in bilingual projects can provide information such as whether project plans are being followed regarding the roles and functions of English and the other language in bilingual classrooms, and the adequacy of parent education activities. In accordance with the intent of Title VII legislation to involve parents significantly in Title VII projects, it is frequently desirable to obtain their assistance in evaluating the types of services being provided in projects. Items from an illustrative parent checklist for use in classroom evaluation visits by parents are presented in the example format shown on page 27. Such a checklist provides a general framework which can be adapted for use by parents for evaluating classroom instruction or, as modified, for evaluating other project components but it would need to be revised to meet particular local needs and circumstances.

A review of length of participation and placement criteria for bilingual projects can also provide information on a number of important topics. It can be of assistance in verifying compliance with the provisions of the 1978 Title VII amendments which require reassessment of students (to determine need for continued services) after two years of participation in a Title VII project. Evaluation in this area can also help to determine the adequacy of classification criteria being used to determine when and if a student should be transferred from the bilingual project to the regular school program. A particularly important matter for the evaluator to consider in this area is the quality of language assessment instruments and other student performance criteria being used for placement decisions (see Chapter IV). It is also important that Title VII evaluations examine the adequacy of follow-up procedures to sustain the achievement of students after they have left the bilingual project. The significance of examining follow-up procedures has been heightened by the requirements in the 1978 amendments to Title VII for necessary follow-up services (provided from state and local services) to sustain the achievement of children after they have left the Title VII program. As "exit criteria" are increasingly used to transfer pupils from Title VII projects to the regular classroom, there will be an increased need to carefully evaluate student transfer policies and to assess the adequacy of procedures being used to sustain students' educational gains.

Evaluation of project implementation may also include many other dimensions which are not unique to bilingual education but which may be particularly salient in evaluating particular bilingual projects. These include describing such things as:

- steps taken in installing the project,
- the program treatment—curriculum, materials, staffing, parental roles, etc.,
- criteria for identification and selection of participants (including fluent-English-speaking students),
- staff development activities,
- project management procedures, and
- particular issues involved in implementing secondary school projects (related to the typical segmentation of junior and senior high school programs).

In addition to providing descriptive information, it is important for Title VII evaluation to attempt to identify the key factors which influence the success of the project. This is among the most useful information which an evaluation can provide. Among the factors which might be examined in order to identify conditions which hinder or support project success are:

- organizational relationships between the bilingual program and the English instructional program at the school and district levels,
- availablility of qualified personnel,
- pupil/teacher ratios,
- amount of instruction provided,
- availability of appropriate curricular materials,
- involvement of parents and other members of the community in project planning and implementation,
- commitment of local and state resources to bilingual education,
- other factors likely to affect project success such as (a) relationships with nearby institutions of higher education, (b) availability of bilingual preschool services, and (c) the nature of desegregation activities, if applicable.

It is also important for the evaluation to determine the suitability of the bilingual program and the adequacy of such factors as language usage, staff training and curriculum materials in relation to particular language subgroups served by the project. For example, some projects serve students from multiple language backgrounds within the same classroom. The selection of the languages to be used in the classroom may be quite difficult. Consider programs which serve both Filipino students and Chinese students speaking a variety of dialects in the same classroom. Some languages used instructionally may be ones which only a few students speak at home. The evaluation can be useful in determining the best combination of languages, teaching strategies, and curriculum materials to use in such multilingual classroom situations.

A final area which warrants attention in reviewing project implementation pertains to fiscal matters. While responsibility for maintenance of the project budget and expenditure data will usually be assigned to a business staff, it may be useful for the project manager to request inclusion within the evaluation of at least some fiscal review. For example, the evaluator might include a review of the status of expenditures to determine whether their levels at various points in time are in accordance with the originally budgeted plan of expenditures for the year.

In conclusion, the evaluation of project implementation can play a particularly useful role in project management. Evaluators can identify areas needing attention *before* they become major problem areas, and they can identify the factors that are facilitating or impeding successful project operation. In some cases, these factors may relate to areas under the project manager's control such as improving staff training or obtaining additional curriculum materials. In other cases, factors affecting project implementation may not be under the Title VII manager's control (e.g., Court-ordered desegregation, impacts of a finding of "Lau" noncompliance in nearby nonproject schools). Even in the latter case, identification of implementation obstacles is quite valuable in order to identify necessary courses of action to deal with them.

In order for information regarding project implementation to be used to improve project functioning, the project manager should establish:

- a formal, short-term (monthly, quarterly) feedback system that will provide a linkage between evaluators and project administrative staff, teachers, principals, parents, and school district personnel

- informal, immediate (daily, weekly) feedback mechanisms to provide ongoing communication between project staff and evaluators

Feedback mechanisms may include (a) meetings between evaluators, project administrative staff, and school board members, (b) written memoranda from evaluators summarizing findings to date, and/or (c) inservice training sessions explaining evaluation findings and proposals for addressing them. The form on page 28 illustrates a monitoring sheet which may be useful for assuring that evaluation findings are used (a) to provide ongoing feedback and (b) as a basis for making project revisions. Such a format is simply suggestive, and should be used by Title VII projects only if it suits the project's own management needs.

Summary

After reading this chapter, you should be able to determine whether the evaluation design for your project:

- satisfactorily measures all major aspects of project implementation,
- includes provisions for immediate feedback of implementation findings to project participants.

The checklist on page 29 contains a more detailed list of the items you should consider in determining whether the evaluation will provide sufficient information regarding project implementation to support your management responsibilities.

FIGURE 4: PROJECT IMPLEMENTATION CHECKLIST*

EXAMPLES OF SELECTED PROJECT CHARACTERISTICS

Grade _____ **School** _____ **Teacher** _____

Date _____ **Observer** _____

Instructions: Please (a) indicate whether the designated activity is observed and (b) also indicate the rating which best describes the degree of implementation of this activity in the project. Use the following criteria in making your judgment:

1 = Implementation is only in the planning stages
2 = Limited implementation
3 = Being implemented, but needs improvement
4 = Full implementation

Project Activities	Observed	Degree of Implementation	Not Possible to Observe but Evident	Not Evident	Comments
1. Staff development workshops conducted regarding bilingual education goals and objectives		1 2 3 4			
2. Teacher and aide training in the use of project curriculum materials		1 2 3 4			
3. Classroom use of English in accordance with instructional plan		1 2 3 4			
4. Classroom use of primary language(s) in accordance with instructional plan		1 2 3 4			
5. Parents and community representatives involved in students' learning experiences		1 2 3 4			
6. Staff training provided concerning evaluation procedures		1 2 3 4			
• • •		1 2 3 4			
• • •		1 2 3 4			

*This material has been adapted from Etherson, E. J., Moesser, A. I., and Sancho, A. R., *The CHESS Guide to Project Evaluation*, Diamond Bar, CA: CHESS and Associates, Inc., 1979.

FIGURE 5: CLASSROOM IMPLEMENTATION CHECKLIST*

Teacher _____

Grade _____

EXAMPLES OF SELECTED CLASSROOM INSTRUCTIONAL CHARACTERISTICS

Proposal Reference (Page)	Observed	Degree of Implementation 1 2 3 4	Not Observed but Evident	Not Evident	Comments
Page 69 Student's language proficiency is individually diagnosed					
Page 72 Curriculum prescriptions are made based upon individual student diagnosis					
Page 51 There is an individualized or small group language program					
Page 20 There is an individualized or small group Reading Lab (primary language and English)					
Page 42 The math curriculum is used for providing math instruction at each student's level					
Page 23 A continuous record keeping system is maintained for reading (primary language and English)					
Page 59 A continuous record keeping system is maintained for math (primary language and English)					
Page 41 A continuous record keeping system is maintained for math (primary language and English)					

*1 - Implementation is only in the planning stages

2 - Limited implementation has started

3 - Being implemented, but needs improvement

4 - Full implementation

*This material has been adapted from Etherson, E. J., Moesser, A. I., and Sancho, A. R., *The CHESS Guide to Project Evaluation*, Diamond Bar, CA: CHESS and Associates, Inc., 1979.

FIGURE 6: PARENT CLASSROOM VISITATION CHECKLIST*

EXAMPLES OF SELECTED CLASSROOM ATTRIBUTES

1. Teachers and teacher aides are providing instruction to individual and/or small groups of students.

   Yes ( ) No ( )

2. Each child is receiving instruction or working on an assignment.

   Yes ( ) No ( )

3. There are materials for children to use when they have completed their assignment (books, instructional games).

   Yes ( ) No ( )

4. Each child has a chair and place to work.

   Yes ( ) No ( )

5. Children appear to be enjoying the learning activity taking place.

   Yes ( ) No ( )

6. If a group activity is taking place, are all students being encouraged to participate?

   Yes ( ) No ( )

7. The learning environment is attractive and conducive to student motivation (this does not include things that are beyond the control of the teachers—e.g., exposed pipes in basement classrooms in older buildings).

   Yes ( ) No ( )

   If "no," what suggestions could be made?

   _____

   _____

   _____

8. Student assignments are checked by the teacher and/or aide upon completion.

   Yes ( ) No ( )

9. Children seem to understand the language being used by the teacher.

   Yes ( ) No ( )

*This material has been adapted from Bernard Cohen Research and Development, Inc., *Parent Involvement in Bilingual Education Evaluation,* New York, New York: Research and Program Evaluation in the Behavioral Sciences, 1979.

FIGURE 7: EVALUATION FEEDBACK MONITORING CHECKLIST

Implementation Finding	Date	Project Feedback Procedure	Date	Project Action Taken	Date

CHECKLIST SECTION III

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

1a. ☐ Procedures have been established for documenting project implementation.

b. ☐ Procedures include methods for describing:

- ☐ steps taken in installing the project,
- ☐ the program treatment—curriculum, materials, staffing, parental roles, etc.,
- ☐ criteria for identification and selection of participants (including fluent English—speaking students),
- ☐ follow-up procedures for sustaining students' achievement after they have left the project,
- ☐ staff development activities, and
- ☐ project management prccedures.

2. ☐ The evaluation contains procedures for identifying factors likely to influence the effectiveness of the Title VII project, including:

- ☐ organizational relationships between the bilingual program and the English instructional program at the school and district levels,
- ☐ availability of qualified personnel,
- ☐ pupil/teacher ratios,
- ☐ amount of instruction provided,
- ☐ availability of appropriate curricular materials,
- ☐ involvement of parents and other members of the community,
- ☐ commitment of local and state resources to bilingual education, and
- ☐ other factors likely to affect project success.

3. ☐ The evaluation includes attention to project fiscal status.

4. ☐ Provisions have been established for ongoing feedback of implementation data to project administrative staff, teachers, principals, parents, and school district staff personnel.

Chapter IV
Measuring Student Performance

Chapter IV. Measuring Student Performance

Some of the issues involved in assuring that an evaluation satisfactorily assesses student progress have been mentioned briefly earlier. This chapter focuses more fully on these issues and discusses other aspects of evaluation of student progress.

Language assessment instruments

Measurement of language dominance and proficiency is essential in order to identify LEP students and to assess their language performance as a basis for classification, placement, and individual educational planning. Much effort has gone toward the development of instruments to measure oral language dominance and proficiency in English and Spanish during the past several years. Several field-tested instruments are now available. There is, however, a shortage of instruments for assessment of important language skills other than oral language and for assessment of students whose primary language is other than Spanish. A common problem is the failure of the instrument developers to provide for differences in sociological, psychological, and bilingual contexts within which children function. References regarding language assessment contained in Appendix B list most of the available instruments for assessing language dominance and proficiency of LEP students and give information about the purposes and technical characteristics of these instruments.

Achievement tests

As in the case of language instruments, significant limitations are found in achievement tests for LEP students. Standardized test instruments in English are frequently inappropriate for use with LEP students, although some commercially available tests have been normed for Spanish-speaking students. For measurement of subject-matter achievement in Spanish, a few tests do exist. For many other languages, however, no such tests have been developed.

The test instruments that are available in particular languages may have to be adapted for project purposes. For example, it is important that a test have a range which is well-suited to measuring skills of the student group to which it is administered. Its *floor* —lower levels of performance which it measures— should not be so high that it does not adequately measure achievement for low-performing students. Neither should its *ceiling* be so low that the achievement levels of high-performing students are not registered. It may be necessary for an evaluator to use what is referred to as out-of-level testing—using not only test forms that are designed for the particular grade level, but also those designed for adjacent grade levels, to effectively measure pre- and post-test performance of project students on available standardized achievement tests.

It may also be that such tests, if norm-referenced —intended to provide comparisons of students' scores with other groups—are not suited to project needs. It may be that criterion-referenced tests which are intended to measure student achievement of particular project objectives are more useful instruments despite the frequent use of norm-referenced tests.

Available tests for measuring student achievement are listed and reviewed in several of the references in Appendix B. It is not necessary, however, for a project director to become an expert in testing and assessment and in available measurement instruments. What is necessary is that the director and/or the evaluation monitoring team work with the evaluator(s) to determine whether:

- language assessment instruments have been selected which are suitable for use with the particular student population and which meet basic technical standards;
- achievement testing instruments have been chosen which measure attainment of project objectives and are technically sound.

It is also important that teachers and aides have a significant role in selecting language assessment and achievement testing instruments. The information yielded from diagnostic assessment and achievement testing should be of assistance to them, and their input in selecting instruments can greatly facilitate use of results. In addition, teaching staff, working with staff responsible for curriculum selection and development, can determine the relevancy of proposed achievement tests to project curriculum and instructional approaches.

Another important element of effective evaluation management is the successful handling of the often complex logistics of student assessment and testing. This includes attention to administration of instruments (discussed in Chapter II) and analyzing and reporting data (discussed in Chapters II and VI).

It is also important that the project manager be sufficiently well versed in the kinds of scores provided by achievement tests to be able to understand the meanings of the types of interpretive information typically reported. Frequently used procedures for reporting and interpreting raw scores are: *grade equivalents, percentiles, quartiles,* and *standard scores.* Each of these terms is defined in Appendix A. Testing and evaluation references which discuss them in more detail are listed in Appendix B. Caution should be exercised in using any of these derived scores; their meaning and their shortcomings must be communicated whenever presenting scores.

Finally, it is important to recognize that achievement tests may provide considerably more information than single summary scores, and that the data yielded may be useful for a variety of purposes. Analyses of test subscores or refined item analyses may be useful for determining which academic objectives have been met and which have not for individual students, classes, grade levels, or the project as a whole. The detailed information available from achievement tests may be quite useful as one tool for determining individual pupils' strengths and weaknesses as a basis for diagnosis and instructional prescription.

Other measures of student performance

Limitations involved in using available testing and assessment instruments with LEP students make it frequently valuable to use a broad array of alternative procedures for measuring language skills and growth in achievement in other subject areas. Among these are, for example:

- interviews, questionnaires, or ratings indicating judgments of teachers and parents about student performance;
- observations of students' classroom behavior, including application of knowledge in classroom learning situations;
- structured tasks assessing students' skills in other than pencil-and-paper response situations.

A particularly useful type of measurement is what is referred to as an unobtrusive measure. This refers to collection of information without the knowledge of the person being assessed. For example, observation of students in a natural situation—such as on the playground or during after-school activities—may yield a reliable measure of oral language skills which can be used to assess language performance. Understanding of numerical concepts can be gauged as a student pays for lunch and counts change. Independent initiation of academic tasks or frequency of completion of such tasks may be used to measure students' learning styles. Indicators of performance such as these may be combined with information derived from structured language assessments of students' academic performance. Additional indicators of student progress are students' classroom grades, other descriptive information contained on report cards, and data regarding grade retention among project participants.

Measures of student changes in other domains

Evaluations of education programs frequently do not give sufficient attention to project impact in noncognitive areas—affective and attitudinal changes, effects of students' social skills, functioning, and status, and so forth. Title VII projects often have significant objectives in these areas, and it is important that the degree of their attainment be measured.

For example, some project objectives may relate to participant students' developing more positive attitudes toward school and improving motivation. One method of measuring accomplishment of objectives in this area might be use of pre- and post-test scores of project students and a comparison group on a paper-and-pencil instrument designed to measure attitudes toward school and subject matter. This could be supplemented by alternative types of measurement such as interviews with students, staff, and parents; classroom observations; and various unobtrusive measures (e.g., numbers of project students who get library cards, numbers of visits to the school or public library). In addition, participants might be compared with a comparison group of students on attendance and absenteeism rates.

Objectives related to improving attitudes toward school might also be assessed through measuring involvement in extra-curricular activities: Useful indicators might include, for example, measures of

participation in student clubs, athletic events, student government, and additional activities such as extra-curricular field trips, science fairs, and other competitive events (for example, state, municipal, or privately-sponsored industrial arts, agricultural, or homemaking competition). Frequency counts of participation as well as data regarding awards to project pupils could be used as indicators of students' involvement in school-related and other learning opportunities.

To make certain that the evaluation examines all major objectives and uses of a broad range of indicators, it is essential for the project manager and/or evaluation monitoring team to examine:

- the **breadth** of project objectives and their planned coverage within the evaluation, and
- the **variety** of indicators to be used for each objective.

Compatibility of student outcome measures with project assumptions

Title VII projects vary considerably in fundamental beliefs about bilingual education and in associated project goals and activities. Many projects reflect the belief that emphasis on primary language maintenance is important to promote enhanced self-image, attitudes toward school, and appreciation of their primary language and culture among LEP students both because of the significance of these objectives on their own merits and because-fostering them is believed to be essential for fostering students' academic achievement and other broader social and cultural goals. The important implication for Title VII evaluations is that they should include a range of indicators for measuring student outcomes (as well as other school and community impacts) sufficient to reflect the project's fundamental assumptions regarding bilingual education and its purposes. The broad-ranging goals of many projects highlight the potential utility of including such indicators of impacts on students' educational participation and self-image as awards, citations, or honors; measures of election to student government positions; selection for class leadership roles; or designation to represent the school in outside community or school district activities.

Long-term measures of effectiveness

It is often valuable if evaluations of bilingual education projects are able to consider their effectiveness over a multi-year period. Such studies may be able to demonstrate impacts of project activities on cognitive and affective objectives which are not evident in a short time period.

An effective multi-year study requires following the same pupils over a number of years. It might include students who have been in the bilingual education project for the entire time period as well as those who have been placed in the regular program after they are no longer classified as limited-English proficient.

It may be difficult to conduct a meaningful multi-year evaluation due to problems of student attrition, project changes, and the like. Nevertheless, if this is possible, it can yield valuable information and should be considered. Among the particularly useful types of data that can be collected for measuring impact on students over a multi-year period are, for example:

- reductions in special education placements,
- decreases in grade retention rates,
- lowered school drop-out rates,
- increased participation in post-secondary education.

Multi-year evaluation is not an alternative to annual evaluation. Rather, annual evaluations should be planned so that evidence is cumulative, in order to display the full impact of the project.

Evaluation of student outcomes in relation to the sequence of instruction

Differences are found among Title VII projects in the sequence of language instruction. Bilingual education projects vary in their plans of progression of language usage from one grade to the next. Some projects place heavy emphasis on primary language instruction throughout the early primary grades and work toward development of English language skills through a sequence involving multiple-grade levels. Some projects have objectives related to achieving both English and primary language proficiency by the end of the elementary grades. The evaluation should be designed to reflect the overall plan of grade-level progression and the different emphases of the project at various grade levels.

Roles of teachers and aides in the evaluation of student outcomes

Finally, it is important to point out the significant roles which can be played by teachers and aides not only in selecting pupil assessment instruments but also in continuous evaluation of student progress. They have day-by-day firsthand experience with student performance and may be able to provide considerable evaluation information by describing, for example, project participants' performance on class assignments and on end-of-unit tests, their conduct and discipline, and their classroom motivation. Teachers and aides should not only be continuing sources of information about student outcomes; they should also be continuing recipients of information obtained through other sources in order to use such information to focus their efforts, to gauge their successes, and to identify activities and areas needing revision.

Summary

The material in this chapter should assist you in making decisions about the adequacy of the evaluation for measuring student progress. It will help you to determine whether your project's evaluation deals sufficiently with issues related to:

- assessment of pupils' language proficiency and dominance;
- measurement of student achievement in English and in the primary language;
- assessment of student affective, attitudinal, and social development;
- the closeness of fit between project goals and methods and measures of student progress;
- the utility of student performance information to project teaching staff.

The checklist on page 35 details the specific issues you should consider in assuring the adequacy of the evaluation for measuring student progress.

CHECKLIST SECTION IV

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

IV. Measuring student performance

1. ☐ Language assessment instruments have been identified for determining pupil eligibility and initial placement, and for continuously reassessing pupil progress to determine appropriate classification and instructional placement.

2a. ☐ Language assessment instruments have been reviewed to judge their technical characteristics.

b. ☐ The rationale for their selection has been documented.

3. ☐ Achievement testing instruments have been selected for measuring preprogram status of student reading in English and in the non-English language, and for assessing changes in student achievement through posttesting.

4. ☐ The rationale for selecting specified achievement testing instruments has been documented, and/or alternative procedures for measuring student progress have been identified.

5. ☐ Provisions have been made for administering all language assessment instruments and student achievement tests, including identification of testing personnel.

6a. ☐ Procedures have been established for analyzing and reporting pretest and posttest results on achievement tests.

b. ☐ Procedures include provision of data for participant pupils and for appropriate comparison standards.

c. ☐ Information to be reported includes mean scores, standard deviations, and results of tests to determine the statistical significance of differences.

7a. ☐ Procedures have been established to measure student affective, attitudinal, and social development.

b. ☐ Measurement instruments and/or other indicators (e.g., unobtrusive measures) have been selected for these areas, and appropriate comparison standards have been identified.

8. ☐ The evaluation of student progress includes indicators sufficient to reflect the project's fundamental assumptions regarding bilingual education and its purposes.

9a. ☐ The evaluation design reflects the overall plan of grade-level progression and the different emphases of the project at various grade levels.

b. ☐ To the extent feasible, the evaluation measures project effectiveness over a multi-year period.

10. ☐ Teachers and aides are involved in providing information regarding student outcomes and in receiving continuous feedback on student performance.

Chapter V
Measuring School, Family, and Community Factors

Chapter V.
Measuring School, Family, and Community Factors

Within the evaluation of bilingual education it is important to attend to roles of parents in programs, to the broader community, to institutional contexts in which the programs operate, and attending to these factors entails four major types of activities. One is documenting the environment in which the program occurs. The second is examining parent participation, including functioning of parent advisory councils (PACs). The third is determining the impact of the program on educational and other institutions within the community. And the fourth is identifying broad systemic effects of the project on families of participants, on the primary language group(s) observed, on the services available to these groups, and on the community at large.

Documenting the school and community context

A unique problem in evaluating bilingual education projects is the difficulty in separating the influence of school and community contexts from the effects of project participation. School staff and communities vary in their attitudes toward particular languages, in their support of bilingual instructional services, and in their willingness to promote usage of languages other than English in the classroom. It is usually impossible to fully distinguish the impact of school and community factors from the effects of a project, but evaluations can collect and report important information regarding the context of the Title VII project.

For example, an evaluation can document such matters as:

- the degree of participation by participant and nonparticipant staff at the school site and at district levels;
- the nature of attitudes toward the project among target group and nontarget group community segments;
- the adequacy of school and district resources other than Title VII funds to support the bilingual education program;
- use of community resources in implementing the Title VII project;
- the extent of variability among individual school sites within the project in degree and quality of school and community support.

It may also be useful for the evaluation to examine the assistance the project needs and the assistance that is being provided by various external agencies. These could include:

- intermediate education units (e.g., county offices of education);
- state departments of education;
- federal bilingual education resources, including regional service and assistance centers and other federally supported resources.

This may enable the evaluation to identify priorities for assistance which the project director will want to direct to these or to other external agencies such as institutions of higher education.

Parent participation and parent advisory councils

The level and quality of parent involvement in bilingual education projects can significantly affect project success. This is an especially important area for evaluation in view of the Title VII legislative intent for a high degree of parent involvement in the design and operation of projects, and the legislative mandate for a parent advisory council for each project.

Objectives and outcomes of parent involvement in projects may be quite comprehensive. For example, projects may seek to:

- increase parent involvement in project decision-making including such areas as personnel selection and approval of curriculum and instructional materials;
- involve a range of parents in classroom events, and in instructional roles (for example, as classroom volunteers; in teaching of materials related to the primary language(s) and culture(s) to pupils and to school staff);

- ensure parent participation in project evaluation;
- provide a variety of parent education activities (for example, regarding instructional goals and methods, procedures for home reinforcement, school events, extracurricular opportunities for students, etc.);
- establish an ongoing liaison with parents of project participants;
- facilitate parent participation through a range of support services (for example, transportation to meetings, funding for participation in relevant conferences);
- improve communication between parents and school teaching and administrative staff.

Measurement concerning the range of parent-related objectives should be included within the evaluation. Many data collection techniques can be used for measuring parental participation in bilingual education projects and the project's impact on parents.[1] These include:

- questionnaires and interviews to determine the degree of parental involvement and satisfaction with the project and their children's schooling generally;
- class record sheets for recording the data, name, and nature of all parent involvement in bilingual education classrooms;
- additional record sheets to record parental involvement in other school and district activities (e.g., Parent Advisory Council, PTA and other parent meetings, school field trips, parent education activities);
- observations at Parent Advisory Council meetings and at other meetings and events to which parents and community members are invited.

Parent questionnaires and interviews may be a valuable technique for examining numerous issues related to parental satisfaction with and participation in the project. The sample parent questionnnaire/ interview format contained on page 42 is intended to reflect the range of questions which might be asked using this procedure. It may be advisable to have such a questionnaire given to parents by other parents who are active participants in the project. This can serve a variety of functions. First, for projects serving children with several different language backgrounds (e.g., Cantonese, Filipino, Spanish, and Samoan; or Japanese, Korean, Vietnamese, and Portuguese), involvement of project parents can frequently provide a means of asking questions to a wide range of parents and obtaining meaningful responses through appropriate translation. Second, involving parents in the design as well as the administration of questionnaires can assure that information collected from parents addresses issues that are salient to project parents. Third, an effective tool for assisting parents to perform significant roles in project decisionmaking is enabling them to obtain information firsthand from other parents and community members concerning perceptions of the project's strengths and weaknesses. Although the sample questions on page 42 would need to be modified for individual projects, they provide an example of the types of questions which might be asked by parent interviewers, for gauging parental and community attitudes toward the project and its components.

It is also important to include within a Title VII evaluation a good deal of attention to the functioning of the parent advisory council (PAC). A basic issue which the evaluation can be useful in assessing is if the PAC is succeeding in assuring parental involvement in project design and implementation and in assuring project accountability to community goals. Among the issues warranting attention in an evaluation are those related to the functioning of parent advisory councils:

- Does the council include a majority of parents and, at the secondary level, representatives of project students?
- Has the council been given an effective role in planning the project and developing the application?
- Has the council been provided with sufficient staff and resources to provide meaningful input during the development of the project application and during the ongoing implementation of the project?
- Has the council continued to provide direction to the project staff and to participate in decisionmaking throughout the project's duration?

[1]This section has been adopted from Title VII evaluation materials developed by R. Cervantes and N. Gold, California State Department of Education.

Impacts on the classroom and school environment

Another issue which frequently warrants attention in examining the broad range of impacts of Title VII projects are their effects on classroom climate and the school environment. For some projects, for example, measures of reductions in school disciplinary occurrences, referrals to the principal's office, incidents of school vandalism, or disruptive events (including, if pertinent, gang activities or violent activities) on school campus may be important indicators of changes in the school environment. Numbers of incidents of this nature and associated costs may be readily available indicators which can be used in evaluations of projects having objectives related to reducing disruptive occurrences on school campuses.

Other, more direct measures of project impact on classroom climate and learning environments may be appropriate for projects having objectives in this area. Among the types of attributes which may be assessed in determining the impact of a Title VII project on these dimensions of students' learning experiences are the extent to which classrooms are:[2]

- positively reinforcing, characterized by interactions in which pupils tend to be recognized for successful performance;
- supportive environments, characterized by friendly interactions among students and between teachers, aides and students;
- cohesive, with students working together and developing mutual understanding within the classroom;
- enthusiastic, with student excitement and involvement in class activities;
- satisfying, characterized by students' demonstrating satisfaction with their accomplishments and the work of the class.

Perception of students (principally at the secondary level), parents, teachers and aides, and administrative staff can provide valuable measures of classroom climates and learning environments. Such perceptions can be of assistance to project managers in determining (a) whether project objectives in these areas are being met, (b) what, if any, changes are necessary to improve classroom climates, and (c) which particular classrooms are supportive of student learning and cooperation and which need improvement in these areas.

An example of the type of rating sheet which might be used in assessing classroom climate is given on page 43. It is intended simply to be illustrative, and in only one of the several types of measurement procedures which could be used to measure success of individual projects in affecting classroom climates and learning environments.

Impacts on additional educational and other institutions

Bilingual education projects may have far-reaching effects on educational and other institutions which go considerably beyond the immediately quantifiable effects on families and schools.[3] For example, projects may have an important "capacity building" effect—that is, they may serve to enhance the understanding and ability to respond to the primary language(s) and cultures(s) by the school, the school district, and the broader community including parents of English-speaking children. Projects may facilitate responsiveness to the needs of limited-English-proficient pupils by, for example, introducing curricula and instructional materials which will be adopted for use throughout the district to provide bilingual education. School board satisfaction with the project may lead to allocation of local funds to support bilingual programs. Staff training activities may teach instructional techniques which can be used by teachers who are not credentialed bilingual instructors. Program evaluation techniques used in the Title VII project may be transferred to other educational projects serving limited-English-proficient pupils. And the materials which describe the project's goals and project evaluation reports may be disseminated to the community-at-large, thereby helping other institutions to better understand and serve limited-English-proficient children and their families.

There are numerous examples of capacity-building effects which extend to other community organizations and institutions. A Title VII project may affect library purchases and services within the community or may influence other human service institutions such as public health departments, maternal and child health programs, and child day care programs,

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[2]Parts of this section have drawn upon Walberg, H. J., *Evaluating Educational Performance: A Sourcebook of Methods, Instruments and Examples,* Berkeley, CA: McCutchan Publishing Corporation, 1974.

[3]Several suggestions for this section were contributed by Pablo Navarro, Interamerican University of Puerto Rico.

allerting them to the benefits of and procedures for tailoring programs to maximize participation of families having home languages other than English.

Effects on community institutions may also be brought about as a result of increased participation in community affairs by the families of project participants. A Title VII project may serve to inform parents about Head Start and community college programs, for example, and may trigger greater participation in these and other programs as well as in overall involvement in local government. In some cases, project goals may relate directly to such wide-ranging effects. Native American Indian projects, for example, may have explicit objectives related to increased control of local educational programs and broader goals related to self-determination by the Indian community.

Additional types of systemic effects of Title VII projects may be seen in employment effects on the communities served, and on secondary effects of increased employment opportunities. For example, Title VII programs may employ numerous teachers and aides from the primary language community in accordance with the legislative priority placed upon using personnel who are proficient in the language of instruction and English. Employment opportunities provided by Title VII projects may have not only immediate economic benefits but also other lasting effects. For example, individuals who have benefited from job opportunities in Title VII projects may participate in other local programs or citizens' groups that can be of benefit to limited-English-proficient children and their families. Thus, the project can serve as a catalytic force engendering responsiveness to the needs of the language minority community in many areas.

In assessing impacts of a Title VII project on the community-at-large, still broader dimensions may be significant. These may pertain to community knowledge of the primary language and culture and to acceptance of bilingualism as a community benefit. Or, they may relate to increased interaction among individuals and families from a variety of home backgrounds.

Inclusion of these various family, school, and community effects within an evaluation may be difficult. Some of these factors may not be quantifiable; others may not be evident immediately, but rather may take a number of years before effects are measurable.

These limitations need not preclude attention to important systemic effects within an evaluation. The project manager should discuss with the evaluation staff and with parents ways of documenting effects of the project on the entire educational system and on other environments within the community. Among the methods which may prove useful in documenting effects in these realms are:

- questionnaires and interviews to parents and project staff asking about evidence of community impacts;
- "diary" recording of community occurrences which appear to be a direct or indirect result of the project (for example, school board decisions, city or county activities, tribal organization actions, etc.);
- "case study" descriptions of particular impacts on community programs and services (e.g., Head Start, community college course offerings).

Specialized evaluation techniques may need to be developed to assess these broad areas which relate to qualitative changes on community institutions and capacity building. However, several of the general formats presented earlier in this Guidebook—questionnaires, rating sheets, checklists, etc—may be adapted for use in measuring systemic effects of Title VII projects on schools, families, and communities. Two other formats which may be useful in measuring effectiveness in these areas are presented on pages 44 and 45. The first is a sample Parent Participation and Parent Education Record. The second is a Project Notes format which can be used by project staff, PAC members, evaluation staff, and others in developing narrative notes regarding the full range of intended, and sometimes unintended, effects of the Title VII projects.

Finally, it is important to note that while some measures of family, school, and community impacts may require considerable time to detect, others can be assessed immediately during project implementation and may have implications warranting quick feedback. If, for example, some parents have participated in no meetings or workshops during the first three months of the school year, it may be appropriate for a community liaison worker to contact them. Similarly, if project notes collected by a number of individuals indicate that elders within an Indian tribe or school board members in a school district believe closer coordination is necessary to articulate the project with the overall educational

plan of the community, objectives oriented toward achieving this coordination and strategies for achieving it may be a high priority for immediate inclusion within the project as it is being implemented. These are a few more examples illustrating the use of evaluation as an ongoing process which is part of the Title VII project throughout its duration, not something separate from it or conducted at its conclusion.

The various school, family, and community factors which can be influenced by bilingual education projects may be appropriate for examination through multi-year assessment. Within efficient sampling, evaluations can (a) assess several of these areas in one year, (b) address others in another year, and (c) collect repeated data for some particularly important objectives over several years. An important role of the project manager is to determine the priority of these activities in relation to other evaluation tasks and to assure that their degree of emphasis (or lack thereof) within the evaluation reflects these priorities.

Summary

The material in this chapter should provide a foundation for you to manage your Title VII project evaluation in such a way that it gives adequate attention to the range of family, school, and community factors which the project may influence. One of the issues you will be able to judge is the satisfactory inclusion in the evaluation of:

- the school and community context in which the project operates;
- the degree and nature of parent participation;
- the functioning of the Parent Advisory Council;
- the impacts of the project on classroom climates and the school environment;
- the other broad effects of the Title VII project on project families, on various institutions, and on the community-at-large.

The checklist on page 46 contains a detailed list of items for you to consider in assessing the evaluation's adequacy in this area.

FIGURE 8: QUESTIONNAIRE / PARENT INTERVIEW*

	Yes	No	Other Response/ Comments
1. Have you ever visited your child's bilingual classroom?	___	___	_____
2. Have you ever discussed your child's progress with his/her bilingual teacher or aide? If you visited your child's bilingual education program, did you learn ways to reinforce your child's education at home?	___	___	_____
3. Do you believe your child's bilingual education teacher(s) are providing your child with the kinds of instruction he/she needs?	___	___	_____
4. Do you feel that enough time is spent in the bilingual classroom learning the basic subjects—Reading, Writing, and Arithmetic—in English?	___	___	_____
5. Have you received enough information from the school district explaining the purpose of bilingual education?	___	___	_____
6. Have you received information regarding parent activities, meetings, and training?	___	___	_____
7. Have you participated in Parent Advisory Council meetings?	___	___	_____
8. Have you participated in PTA or other school meetings?	___	___	_____
9. Have you participated in parent education activities?	___	___	_____

10. What additional opportunities for participation in your child's bilingual education program in parent education activities would you like?

_____

_____

11. What do you see as the strengths of your child's bilingual education program, and what suggestions would you make for its improvement?

_____

_____

*This material has been partially adapted from Bernard Cohen Research and Development, Inc., *Parent Involvement in Bilingual Education Evaluation,* New York, New York: Research and Program Evaluation in the Behavioral Sciences, 1979.

FIGURE 9:
CLASSROOM CLIMATE RATING SHEET*

EXAMPLES OF SELECTED CLASSROOM CLIMATE CHARACTERISTICS

School _____ **Date** _____

Class _____ **Rater** _____

CLASSROOM CLIMATE DIMENSION	Strongly Agree	Agree	Disagree	Strongly Disagree	Comments
1. Teachers and aides praise pupils for successful performance in English instructional activities					
2. Teachers and aides praise pupils for successful performance in primary language instructional activities					
3. Interactions among limited-English-proficient students and between these students and fluent-English-speaking students are friendly					
4. Interactions between teaching staff and limited-English-proficient students are supportive					
5. Interactions between teaching staff and fluent-English-speaking students are supportive					
6. Students work together within the classroom and develop a mutual understanding of their languages and cultures					
7. Students are excited about and involved in classroom activities in English					
8. Students are excited about and involved in classroom activities in primary language(s)					
9. Students are satisfied with their work and the accomplishments of the class in the primary language					
10. Students are satisfied with their work and the accomplishments of the class in English					

*Rating forms like this one can be used to obtain classroom climate ratings from students (at the secondary level), teaching staff, parents, project or district administrative staff, evaluation staff, etc.

FIGURE 10: PARENT PARTICIPATION AND PARENT EDUCATION RECORD*

Names of Project Parents \ Project Events and meetings									
1.									
2.									
3.									
4.									
5.									
6.									
TOTALS Project Parents: / Parent Participants:									
Project Objective (%)**									
Place check if attendance met project objective									

*This material has been adapted from Etherson, E. J., Moesser, A. I., and Sancho, A. R., *The CHESS Guide to Project Evaluation,* Diamond Bar, CA: CHESS and Associates, Inc., 1979.

**For example, project objective might be 70% parent participation, 80% parent participation, etc. for various activities.

FIGURE 11: PROJECT IMPACT NOTES

School (if applicable) _____

Recorder's Name: _____

This sheet is intended for use in describing the impacts of the Title VII project on families, schools, and the community-at-large. It should be used for recording incidents which describe various intended and unintended effects of the project including, for example, influences observed at such events as PTA meetings and school board meetings, in libraries and other community institutions, on community social services, etc.

DATE	EVENT/INCIDENT	PERSONS INVOLVED	NOTES DESCRIBING TITLE VII INFLUENCE

CHECKLIST SECTION V

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

IV. Measuring student performance

V. Measuring family, school, and community factors

1. ☐ The evaluation includes procedures for documenting the school and community context in which the project operates.

2. ☐ Procedures have been established for examining parent participation, including a review of the project's provisions for:

   ☐ encouraging and facilitating parent participation in a variety of roles,

   ☐ parent involvement in project decisionmaking,

   ☐ parent participation in classroom events and in instructional roles,

   ☐ parent participation in project evaluation,

   ☐ parent education activities, and

   ☐ ongoing liaison between the project and parents.

3. ☐ The evaluation examines the functioning of the Parent Advisory Council (PAC), including attention to:

   ☐ the composition of the advisory council,

   ☐ its role in project planning and application development,

   ☐ the adequacy of staff and resources made available to the council (a) to prepare comments and the recommendations concerning the project application, and (b) to provide continuing direction to the project,

   ☐ the influence of the PAC in project decisionmaking.

4. ☐ Methods are included to assess impacts of the project on educational and other institutions within the community, including attention to improving the understanding of and ability to respond to the primary language(s) and culture(s) by:

   ☐ the school,

   ☐ the school district,

   ☐ other community institutions.

5. ☐ The evaluation considers project effects on classroom climates and/or the school environment. The evaluation includes attention to other effects of the Title VII project:

   ☐ on families of participant children and their functioning within the community,

   ☐ on the primary language group(s) served, including their participation in community bodies and processes,

   ☐ on services available to limited-English-proficient children and their families,

   ☐ on the community-at-large.

Chapter VI
Analyzing and Reporting Evaluation Results

Chapter VI. Analyzing and Reporting Evaluation Results

Analyzing Data

Data analysis is concerned with analyzing and interpreting the information obtained through all the evaluation instruments and organizing it in a meaningful form. It allows one to look for patterns within a group of respondents and across groups of respondents and, with certain kinds of data, to determine whether "significant" relationships exist.

Depending upon the design selected and the kinds of instruments used, a variety of data analysis techniques exist. Data analysis is often the most baffling part of an evaluation, in part because theories of probability and statistical vocabularies are introduced. There is, however, nothing mystical about data analysis. Every data analysis technique has an equivalent which can be stated in plain and understandable terms.

In fact, some of the data analysis appropriate to evaluating Title VII projects does not involve the use of the more complicated statistical techniques, since the assumptions upon which these statistics rest are often not relevant to "real world" programs.

To illustrate the range of data analysis possibilities, let's return to some of the hypothetical objectives for a Title VII project mentioned earlier. One set of objectives, for example, relates to parents' views of the Title VII project (whether they have positive attitudes about the project, what they perceive as being the project's goals, whether they feel their children are making significant gains in learning, and whether they feel their children have a positive attitude about school as a result of being in the program). A variety of items may have been asked, through a survey or through an interview, to obtain information on attitudes and perceptions. These items may have used a five-point scale, ranging from "strongly agree" to "strongly disagree." Simple tallies or percentages of parents checking a particular rank could be presented, or an average rank could be computed by item. While excessive reliance on percentages—more formally called descriptive statistics—could make an evaluation report resemble a television commercial (e.g., "Three out of four dentists surveyed recommend... "). Such statistics are nevertheless easy to understand and can illustrate the range of attitudes about a project.

Another example of the use of descriptive statistics is the analysis of data as to whether individualized learning sequences were developed for students based upon their pretest scores on subtests of a standardized test battery. One would first note whether such sequences were in fact developed (and if not, why not?) and then record the number of students who received more instruction in the areas identified. While one would then probably want to ask whether the individualized learning resulted in greater cognitive gains, this would require the use of more sophisticated analysis techniques. The data, however, on whether such sequences were developed and the number or proportion of students involved could provide useful information to program managers about this learning technique, especially if such information was coupled with interview data from teachers about their assessment of using test score data for instruction.

Much interview and observational data, especially about process objectives, are often analyzed using the same approach as a journalistic investigation. Assume that one objective was to trace the steps the Title VII project director followed in attempting to secure funds and resources to provide counseling services for former Title VII students now enrolled in predominantly English-speaking classes. The write-up of the objective could read as follows:

> During the fall of 1979, the Title VII manager met once a month with the director of student services, the head of school district personnel, and met twice with the superintendent. The purpose of these meetings was to develop a budget strategy to discuss with the board of education prior to its budget decisions.
>
> At the same time, the project manager had several conversations with the Title VII program officer in Washington to see whether Title VII funds could be used for counseling services the following year. Additional Title VII funds were not available, so the Title VII manager accompanied the superintendent to several school board meetings. The evaluator sat in on the board meeting and interviewed informally the head of the school board after the board meeting.
>
> While the presentation to the board cited the lower achievement scores of the former bilingual students and noted that the dropout and truancy rates of formal bilingual program students were higher than those for the rest of the student body, the board declined the

request for funds for a full-time counselor in the budget. The school board chairperson cited later that she was opposed to the funding for fear that it would establish a precedent to have additional counselors for every special student population. When the board was requested, however, to convert a part-time counselor position in West End High School to full-time status on a temporary basis (at the added cost of $7,500), the request was approved provided that students with the lowest achievement scores were given priority.

In the meantime, the project manager also arranged informally with a study hall supervisor, who is bilingual, to arrange informal group counseling sessions with the students in the study hall, most of whom live in the Spanish-speaking community. When the study hall director was asked about the success of these informal counseling sessions, he indicated that it was really too soon to tell, although some of the other students in the study hall had complained that the group counseling students were getting preferential treatment.

This summary essentially is a synopsis of interviews and observations by the evaluator. It notes specifically what actions were taken, and it informally addresses what the apparent initial impact has been[1].

Much of the data analysis on student achievement will be highly technical and will include the use of statistics that test whether statistically significant changes have taken place. An important first step is to ascertain whether the assumptions underlying the use of the statistics are met.

It may turn out that some of these assumptions are not met by project data obtained from particular instruments. It is essential, therefore, that the evaluator(s) be asked (a) to review the statistical assumptions of the planned data analysis procedures to determine whether the data fit them, and (b) to propose alternative procedures if the assumptions are not valid for particular sets of project data.

There are several straightforward types of information that the project manager should seek from the evaluator(s) in order to develop a fundamental understanding of the project data. These relate to the average levels of scores on various measures and the spread among participants in their scores on these measures.

The basic statistics necessary for understanding these things are pre- and post-test:

- mean or median scores on each instrument,
- range of scores—from the lowest to the highest,
- variances (standard deviations or frequency distribution) of scores.

An understanding of these fundamental statistics, plus a description from the evaluator of any particularly noteworthy characteristics of data obtained in the evaluation, can provide the project director with a good grasp of the quantitative findings of an evaluation.

Additionally, a project director should know whether findings reported in an evaluation are statistically significant—that is, whether the findings would have occurred simply by chance, or whether they are likely to be due to actual project effects.

A project director should also know the limitations of the evaluation data. It is valuable, therefore, to ask the evaluator(s):

- What conclusions can justifiably be drawn from the evaluation data?
- What cautions must be observed in describing the data, and what kinds of remarks should be avoided because they are not supported by the data?

The answers to these important questions should not only be communicated to the project manager and the evaluation monitoring team, but should also be reflected in other written and oral evaluation reports.

If there are any questions about the analysis, it may be wise for the program manager to secure the services of an expert consultant. These individuals could serve as an independent audit on the methods of data analysis and on the conclusions from the data.

[1]The section on descriptive statistics and examples were provided by Mary Ann Millsap, NIE.

Evaluation Reporting[2]

Ongoing reporting. Final evaluation reports should contain few surprises. The project manager should have been receiving prompt and continuous feedback on preliminary findings. Early, interim reports should have been prepared in either written or oral form, depending on how much time the project manager wanted the evaluator to spend on them, and whether there was a need to distribute them beyond the project staff and the evaluation monitoring team.

Prompt reporting usually makes findings more useful, maintains the interest of the major audiences in the evaluation, and serves to inform evaluators about the types of reporting formats most useful to decisionmakers and other users. If, however, the interim reports are to be distributed (beyond the project's staff and an evaluation monitoring team), they should be subject to the rigorous draft review process used for all final reports.

Interim reports—whether they are written or oral—usually contain results from components of the evaluation which are completed well in advance of the final report, for example:

- analysis of the language proficiency of students participating in Title VII projects,
- results of interviews with staff and parents conducted early in the year.

Early information on topics such as these may help the project staff to better understand the needs of students, staff, and parents, and to better target project activities.

Final reporting. Preparation of final reports which meet the needs of potential users is essential to promote the use of the evaluation data and to make all the effort that has gone into it worthwhile. It is frequently necessary to develop different final reporting procedures and formats which meet the needs of different principal audiences.

A complete final report will be necessary for the local school board, the state education agency, and the U.S. Department of Education, Office of Bilingual Education. The specific reporting requirements for OBE will be forthcoming, though in general a final report will provide a comprehensive description of:

- the project and its objectives,
- the evaluation methodology,
- findings related to (a) project implementation, (b) student performance, and (c) school, family, and community factors,
- the statistical and educational significance of the findings—the latter referring to the educational importance of differences reported,
- any limitations which should be considered in interpreting the results of the evaluation.

Other report documents frequently must be developed to meet the particular needs of specific audiences. It is usual for all such reports to at least contain (a) a description of the project and its associated objectives, (b) evaluation findings, and (c) a discussion of the significance of the results.

Of particular importance for most projects is preparation of a brief *executive summary*. Such a document contains the major findings of the full report and is intended for widespread distribution and use by policy-makers and community members (for example, school board members, PTA officers, the community-at-large).

Additional report documents which may be particularly useful are:

- component reports which focus on particular issues (e.g., staff development, the functioning of the Parent Advisory Council),
- reports in one or more languages other than English.

The contents of these various reports may differ considerably, in relation to the type of questions of concern to the intended audiences. In addition, some reports may be fairly technical while others will be written in "plain," layman's language, again depending upon the intended audience.

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[2]Parts of this section are adapted from "Consumer's Guide to Third-Party Evaluators of Educational Programs," Crawfordsville, IN: New Educational Directions, Inc., 1979.

Some evaluation reports include recommendations and others do not. It is up to the project manager and the evaluation monitoring team to decide, during the planning and conduct of the evaluation, whether recommendations are desired and, if so, which issues will be addressed. During the review of draft reports, the appropriateness of proposed recommendations can be assessed. Because potential programmatic changes are issues about which the project manager or the evaluation monitoring team typically have more knowledge than the evaluator(s), it may be beneficial for all of these groups to work together in developing report recommendations. Recommendations should be supported by the evaluation findings.

Meeting scheduled release dates—whether originally planned dates or the sometimes necessary advances in schedules—requires quick turn-around of the report draft which is prepared by the evaluator(s) for the project manager and evaluation monitoring team. All individuals who are to review and comment on a draft should be alerted to timelines well in advance in order to free up their schedules. In addition, procedures for review and comment on drafts should be agreed upon in advance. These should include criteria for assuring that proposed changes are actually necessary to improve the quality and utility of the report.

For evaluations to be used in decisionmaking, reports must become available as scheduled. It is very easy to fall behind schedule. It is important, therefore, for the project manager or evaluator to keep in constant touch with major users to assure that the scheduled release dates suit their needs or to make any adjustments needed to fit decision timelines.

It is important to remember that reporting does not simply mean issuing written documents. Often the most effective communication of evaluation results comes in face-to-face oral presentations. Thus, the project manager should arrange for the evaluation findings to be presented at appropriate meetings of parent groups, school boards, and other interested community groups. Special display materials may be necessary to make such presentations as effective as possible, and responsibilities for development of such materials should be designated well in advance of the time they are needed.

Finally, many useful suggestions may be provided to the project staff as a result of comments and reactions to the evaluation. Formal or informal procedures for eliciting and recording comments about evaluation reports and evaluation activities should be established. These may yield many unexpected benefits from the evaluation effort.

Summary

The material in this chapter will allow you to assure that evaluation activities related to analyzing and reporting project results are carried out effectively. The chapter will assist you in providing oversight regarding:

- data analysis methods,
- report contents and formats,
- reporting schedules and responsibilities.

The checklist on page 51 details the specific matters you should consider to assure effective analysis and reporting of evaluation findings.

CHECKLIST SECTION VI

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

IV. Measuring student performance

V. Measuring family, school, and community factors

VI. Analyzing and reporting evaluation factors

1a. ☐ Data analysis procedures have been developed to answer each major evaluation question.

b. ☐ Plans include tests of statistical significance for all areas in which this is appropriate.

2a. ☐ Data analysis procedures have been reviewed to assure that they are appropriate.

b. ☐ Statistical assumptions have been examined to determine whether they are valid.

3. ☐ Provisions have been made for appropriate reporting formats to meet the particular needs of major identified audiences, including an executive summary.

4. ☐ The evaluation report(s) are to include:

- ☐ a description of the project and its objectives,
- ☐ a description of the conduct of the evaluation,
- ☐ a description of the evaluation findings, and
- ☐ a discussion of the significance and implications of the project results.

5. ☐ Appropriate language(s) have been identified for reporting the evaluation results to designated audiences.

6a. ☐ Timelines have been established for completion of all report documents, including interim and draft reports.

b. ☐ The schedules assure that evaluation results will be available to assist project administrators, staff, teachers, and other school and district personnel in ongoing program planning and revision.

7a. ☐ Responsibilities have been assigned for presenting evaluation results to parent groups, school boards, and other interested community groups.

b. ☐ Materials have been developed to aid such presentations.

8. ☐ Procedures have been developed for eliciting comments and suggestions regarding the evaluation report.

9. ☐ Provisions have been made for project staff, teachers, aides, parents, and other relevant groups to evaluate the evaluation, to identify any problems created by evaluation activities, and to suggest modifications in evaluation procedures.

10. ☐ The evaluation report(s) includes specific recommendations for program changes where appropriate or, alternatively, identifies a number of options which might be adopted for addressing problem areas.

Chapter VII
Using the Evaluation Findings

Chapter VII. Using the Evaluation Findings

Promoting effective use of evaluation findings begins with careful planning to address the needs of identified audiences and to assure the involvement of major potential users throughout the ongoing element of the evaluation effort. The latter is achieved through continuous feedback to teachers, project administrative staff, other school and district personnel, and parents. If procedures are established to ensure that corrective actions are made continuously to address identified problems, then the use of evaluation findings will most likely be productive.

For instance, interim evaluation data may indicate that one form of instructional activity is producing results much faster than planned, whereas another is not making any significant difference in student performance. Instead of maintaining the initial relative emphasis on the two types of instruction, it would be appropriate to consider a modification at that point.

Several formal steps should be taken both during and at the completion of an evaluation to enhance the likelihood of its use. Mechanisms should be developed by the project manager for receiving staff reactions to evaluation findings and recommendations. This should include staff involvement in identifying and analyzing potential actions to address evaluation findings. For example, an evaluation may include a finding such as the following:

> *Students in the Title VII project classes are not being reassessed to determine language classifications until after two full years of participation in the program. Many participants in the project have begun to function at relatively high levels in English, while waiting lists of LEP students exist for entrance into the project.*

This finding may suggest the need for:

- more frequent reassessment of students' language skills;
- improved criteria for placing and transferring sudents in bilingual classes into the regular school program;
- additional staff development activities to improve skills of teachers and aides in assessing language skills of students during normal classroom activities.

It is important that the project manager also establish procedures for involving parents and students (at the secondary level) in the process of identifying potential actions, such as these, in response to evaluation findings.

Project plans should be revised to include corrective actions which have been determined to be advisable. Associated project objectives should be developed, specific strategies designated to implement corrective actions, and procedures identified for evaluating them.

Follow-up procedures should be routinely scheduled at designated time periods during the year to determine progress in implementing corrective actions and to assure continuous attention to findings developed during the course of the project. Findings contained in end-of-year evaluation reports should be reflected in the management plan for the next project year.

Using a structured management process like this to determine progress in implementing corrective changes may demonstrate some areas in which planned actions have not been taken.[1] In these areas the project manager should ask:

- Have sufficient efforts been made to communicate the intended corrective actions?
- Has the attempt been made to encourage project staff to make the designated changes?
- What obstacles exist to implement the corrective actions?

[1] It may be useful to adapt the Evaluation Feedback Monitoring Checklist contained in Chapter III as a device for tracking actions taken to address evaluation findings.

The evaluation can play an important role in exploring these questions. This process can help project managers develop an understanding of the impediments to installing suggested project improvements.

Finally, it is important to recognize that effective use of evaluation findings does not simply mean making project changes to deal with identified problem areas. For example:

- Evaluation reports frequently indicate that various project components are highly successful. The evaluations serve to validate the components and should be used to encourage project continuation of these components (except for components that are no longer necessary).

- Evaluation reports may serve to describe a project to parents of both participants and nonparticipants. The findings may lead to considerable interest in the project, encourage community members to visit and observe it, and may increase understanding of and support for it in the community.

- Evaluation reports may help to inform decisionmakers about the rationale for, the efforts involved in, and the actual or potential benefits of a project. This may help to create positive opinions about the project among decisionmakers as well as to affect individual decisions.

- An evaluation report may serve to convey information about a project to other locations and to institutions of higher education. Knowledge of shared interests may provide a foundation for continuing communication and exchange of ideas among bilingual education projects and between these projects and teacher training institutions.

- An evaluation report may be a morale booster for project teachers and administrative staff who see it as tangible testimony to the considerable efforts they have expended in making the project work.

Thus, there may be many potential users and users of evaluation information. The rule-of-thumb to follow when a report has been completed is **Think Big.** A vast amount of time and effort has gone into developing a quality evaluation, and the resultant report should, within available resources, be shared with a broad range of interested individuals—both to inform them about the project and to provide feedback to the project manager and staff [2].

Summary

After becoming familiar with this chapter, you will be able to identify the management steps necessary to assure effective utilization of evaluation results. These steps relate to:

- identifying actions for addressing evaluation findings;

- developing implementation strategies for taking corrective actions;

- following-up to determine whether corrective actions have been instituted.

The checklist on page 55 details the issues you should consider to be sure that this final component of effective evaluation is implemented in order to make the evaluation effort result in an effective tool for you in managing and improving your Title VII project.

[2] It may be useful to include within evaluation reports a note indicating to whom and where comments should be communicated in order to increase the likelihood of receiving feedback from outsiders.

CHECKLIST SECTION VII

I. Planning and organizing for effective evaluation

II. Designing the evaluation

III. Measuring project implementation

IV. Measuring student performance

V. Measuring family, school, and community factors

VI. Analyzing and reporting evaluation factors

VII. Using evaluation findings

1. ☐ Procedures have been developed for identifying corrective actions necessary to address evaluation findings and recommendations.

2a. ☐ Provisions have been developed for revising project plans to include corrective actions addressing evaluation findings.

b. ☐ Provisions include identification of appropriate project objectives to be revised.

c. ☐ Provisions include designation of strategies to implement corrective actions.

3. ☐ Evaluation follow-up procedures are scheduled at designated time periods to assess progress in implementing corrective actions and addressing recommendations.

Appendices

Appendix A

Glossary of Technical Evaluation Terms

This glossary defines several terms which are referred to in the Guidebook or are frequently used in the evaluation of bilingual education projects.[1]

Analysis. The process of organizing, verifying, and summarizing data to obtain answers to questions.

Comparison Standard. A reference for determining project effects. It may be based upon a similar group of students not in the project, on past data from the project group, or on statistics derived from local, regional, or national norms.

Criterion-Referenced Test. A test designed to measure the level of performance or degree of mastery of specific objectives.

Educational Accomplishment Audit. A process for obtaining external evaluation assistance to appraise a project's evaluation design and procedures if the evaluation is to be conducted internally.

Educational Significance. A difference in measurements large enough or in an important enough area to have educational relevance. A standard frequently used is a difference greater than one-half standard deviation (see below).

Evaluation. Obtaining and using information about the implementation and effects of a program in order to improve and make judgments about it. Evaluation includes information from many sources and provides a basis for future planning, development, maintenance, and improvement of the program.

Evaluation Design. The structure of an evaluation. The design specifies what questions will be asked, what information will be collected when, what instruments will be used, what comparisons will be made, what analyses will be performed, and how results will be reported.

Formative Evaluation. Evaluation which is continuous during the operation of a program and which facilitates refinement and optimization of a program through ongoing feedback.

Grade Equivalent. The grade level for which a particular score on a test would be average (for example, third grade, fourth month).

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[1]Many of these definitions have been adapted from the following references:

Pletcher, B. P., et al. *A Guide to Assessment Instruments for Limited English Speaking Students.* New York, NY: Santillana Publishing Co., Inc., 1978.

Handbook for the Evaluation of Multifunded Educational Programs. Sacramento, CA: California State Department of Education, 1975.

Parent Involvement in Bilingual Education Evaluation, New York, NY: Bernard Cohen Research and Development, Inc., 1979.

Instrumentation. Any procedure used to collect data. In addition to tests, these include interview guides, observational records, checklists, questionnaires, and procedures for collecting already available data such as attendance, drop-out rate, and school violence and vandalism statistics.

Mean. The average of a group of scores.

Median. The value which divides a group into an upper and lower half.

Measurable Objective. A statement of a desired outcome, progress toward which can be observed.

Norm Group. A reference group which is based upon norms of student performance on a standardized test. The norms may be national, state, or local.

Norm-Referenced Test. Tests designed to place students in rank order and to provide comparisons of students' scores with other groups. Their scores represent a comparison to average performance of a group of students at a particular grade. However, the scores are not standards for performance applicable to all groups of students.

Percentile Score. A rank which can be used to indicate how a child performs in relation to other children. For example, if a child scores at the 35th percentile, the child scores better than 35% of children at his/her grade level.

Population. All of the individuals or things in a group.

Posttest(s). Measure(s) which are taken at the end of a program.

Pretest(s). Measure(s) which are made before a program begins.

Quartile. A dividing point that separates results into four equal parts. The first quartile includes the lowest 25 percent of scores; the second quartile goes from 26th through 50th percentile; and the fourth quartile includes the 76th percentile and above.

Random Sample. A subset of a population chosen in such a way that every member of the population has an equal chance of being included.

Range. The difference between the highest and the lowest obtained score among a group of individuals; a crude measure of variability.

Raw Score. A test score as obtained before any analyses are performed.

Reliability. The accuracy and consistency of a measuring instrument.

Representative Sample. A sample that reflects the characteristics of the whole population (in all respects that are likely to influence results).

Sample. A subset of a population. An attempt is usually made to choose a sample that will be representative of the entire population, using random sampling or an appropriate alternative.

Standard Deviation. A measure of variability (for example, of test scores).

Standard Score. A score expressed in terms of the standard deviation. Standard scores can be used to perform analyses involving numerous different test instruments.

Standardized Test. A test which has items that have been rigorously selected and tested; it is accompanied by directions for its administration, scoring, and interpretation.

Statistically Significant Difference. A difference large enough that it would rarely have occurred by chance. A difference significant at the one percent level is one that would occur less than one time out of 100 due to a chance alone.

Stratified Sample. A sample selected by dividing a large group into smaller subgroups on the basis of characteristics likely to affect results. Each subgroup in the sample is proportionate to the size of the subgroup in the population.

Summative Evaluation. Evaluation which is performed at the completion of a program. Its principal purpose is to provide information concerning the degree to which program objectives have been accomplished.

Unobtrusive Measure. A measure that can be used to collect information without the knowledge of the person's being assessed.

Validity. The extent to which an instrument measures what it is supposed to measure.

Variability. The degree to which the scores on an instrument are spread out from the average.

Appendix B

Selected Bibliography Related to Evaluation of Bilingual Education Projects

The following is a list of several references likely to be useful for managing evaluations of bilingual education projects. It is not an exhaustive list of such references, but rather is intended to serve as a starting point to help project administrators identify a range of materials which can assist them in further learning about and managing evaluations.

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Appendix C

NIE/OBE WORKSHOP FOR IMPROVEMENT OF TITLE VII PROGRAM MANAGEMENT AND EVALUATION

Participants

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